# **WEST Search History**

Hide Items Restore Clear Cancel

DATE: Monday, January 23, 2006

Hide? Set Name Query Him				
	DB=PG	PB,USPT,EPAB; PLUR=YES; OP=OR		
	L34	L27 and probe	1	
	L33	L27 and complementary	0	
	L32	6316272.pn.	1	
	L31	L30 not @ay>2001	20	
	L30	L1 and (prostate or colon)	39	
	L29	L28 not @ay>2001	20	
	L28	L3 and (prostate or colon)	39	
	L27	6794501.pn.	1	
	L26	6794501.pn	0	
	L25	L24 and L1	0	
	L24	colorectal.ti.	208	
	L23	L22 and (prostate or colon)	0	
	L22	6235879.pn.	1	
	L21	L20 and L14	2	
	L20	L19 and L12	4	
	L19	(ross or mizukami or Rao).in.	21320	
	L18	L2 and L12	6	
	L17	L13 and (prostate or colon)	3	
	L16	L15 and (prostate or colon)	2	
	L15	L13 and L14	2	
	L14	L2.clm.	37914	
	L13	L3 and L12	6	
	L12	L7 or L8 or L10	8	
	L11	L7 or L8 or L10L10	5	
	L10	L1.ab.	7	
	L9	L1.ab. L8	8	
	L8	L1.ti.	4	
	L7	L1.clm.	3	
	L6	L5 and (screen\$ or detect\$ or determin\$ or diagnos\$)	34	
	L5	L3 and L4	34	
	L4	$@AY \le 2001$	5488050	

L3	L1 and L2	70
L2	cancer\$ or neoplas\$ or angiogen\$ or tumor\$	184538
Ll	hip1 or (huntington adj interacting adj protein)	81

END OF SEARCH HISTORY

# GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 10, 2006, 11:00:20; Search time 14682 Seconds

(without alignments)

17554.026 Million cell updates/sec

Title: US-10-007-047-1

Perfect score: 4534

Sequence: 1 ccaagcttggtacccccggg......gcatgcnntagagggcccta 4534

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 5883141 seqs, 28421725653 residues

Word size: 0

Total number of hits satisfying chosen parameters: 11766282

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database: GenEmbl:\*

1: gb ba:\*

2: gb in:\*

3: gb\_env:\*

4: gb om:\*

5: gb ov:\*

6: gb pat:\*

7: gb ph:\*

8: gb\_pr:\*

9: gb ro:\*

10: gb sts:\*

11: gb sy:\*

12: gb un:\*

13: gb vi:\*

14: gb\_htg:\*

15: gb\_pl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	3035 3035	66.9 66.9		-	HSU79734 AX828392	U79734 Human hunti AX828392 Seguence

	3	3028	66.8	4707	6	CQ728008	CQ728008 Sequence
	4	2940	64.8	3093	8	AF365404	AF365404 Homo sapi
	5	2619	57.8	4796	6	AR153626	AR153626 Sequence
	6	2619	57.8	4796	6	BD227037	BD227037 Apoptosis
	7	1162	25.6	1201	8	HSHIPIPRO	Y09420 H.sapiens m
	8	973	21.5	134979	8	AC018720	AC018720 Homo sapi
	9	955	21.1	3715	6	AR153661	AR153661 Sequence
	10	955	21.1	3715	6	BD227072	BD227072 Apoptosis
	11	955	21.1	3715	8	HSAHIPI28	AF052288 Homo sapi
С	12	922	20.3	180399	14	AC079252	AC079252 Homo sapi
	13	907	20.0	1164	6	AR153625	AR153625 Sequence
	14	907	20.0	1164	6	BD227036	BD227036 Apoptosis
С	15	740	16.3	183915	14	AC073967	AC073967 Homo sapi
	16	554	12.2	601	6	AX321326	AX321326 Sequence
С	17	394	8.7	5853	6	AX828539	AX828539 Sequence
С	18	393	8.7	393	6	AX828493	AX828493 Sequence
	19	331	7.3	331	6	AX321316	AX321316 Sequence
	20	322	7.1	2440	8	AB179164	AB179164 Macaca fa
С	21	310	6.8	172105	8	AC093135	AC093135 Pan trogl
С	22	310	6.8	199670	8	AC142303	AC142303 Pan trogl
С	23	310	6.8	221091	8	AC146228	AC146228 Pan trogl
	24	259	5.7	518	6	CQ102544	CQ102544 Sequence
	25	259	5.7	518	6	CQ141451	CQ141451 Sequence
	26	259	5 <b>.7</b>	518	6	CQ224738	CQ224738 Sequence
	27	259	5.7	518	6	CQ299810	CQ299810 Sequence
	28	259	5.7	518	6	CQ336990	CQ336990 Sequence
С	29	250	5.5	166701	8	AC147785	AC147785 Pan trogl
	30	187	4.1	436	6	AR153645	AR153645 Sequence
	31	187	4.1	436	6	BD227056	BD227056 Apoptosis
	32	187	4.1	436	8	HSAHIPI12	AF052272 Homo sapi
	33	184	4.1	184	6	CQ115605	CQ115605 Sequence
	34	184	4.1	184	6	CQ154394	CQ154394 Sequence
	35	184	4.1	184	6	CQ237647	CQ237647 Sequence
	36	184	4.1	184	6	CQ312242	CQ312242 Sequence
	37	184	4.1	184	6	CQ349660	CQ349660 Sequence
	38	175	3.9	279	6	AR153660	AR153660 Sequence
	39	175	3.9	279	6	BD227071	BD227071 Apoptosis
	40	175	3.9	279	8	HSAHIPI27	AF052287 Homo sapi
С	41	163	3.6	1290	6	CQ742344	CQ742344 Sequence
	42	163	3.6	175839	8	AC004491	AC004491 Homo sapi
С	43	163	3.6	195646	8	AC093709	AC093709 Pan trogl
	44	161	3.6	161	8	AF486833	AF486833 Homo sapi
С	45	161	3.6	243	10	G30915	G30915 sWSS3387 Er

## ALIGNMENTS

## RESULT 1 HSU79734

LOCUS HSU79734 4714 bp mRNA linear PRI 06-MAY-1997 DEFINITION Human huntingtin interacting protein (HIP1) mRNA, complete cds.

ACCESSION U79734

U79734.1 GI:2072422 VERSION

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
            Hominidae; Homo.
               (bases 1 to 4714)
REFERENCE
            Kalchman, M.A., Koide, H.B., McCutcheon, K., Graham, R.K., Nichol, K.,
 AUTHORS
            Nishiyama, K., Kazemi-Esfarjani, P., Lynn, F.C., Wellington, C.,
            Metzler, M., Goldberg, Y.P., Kanazawa, I., Geitz, R.D. and Hayden, M.R.
            HIP1, a human homologue of S. cerevisiae Sla2p, interacts with
  TITLE
            membrane-associated huntingtin in the brain
  JOURNAL
            Nat. Genet. 16 (1), 44-53 (1997)
            9140394
  PUBMED
REFERENCE
            2 (bases 1 to 4714)
            Kalchman, M.A., Nichol, K., Graham, R.K., Geitz, R.D. and Hayden, M.R.
 AUTHORS
 TITLE
            Direct Submission
            Submitted (24-NOV-1996) Medical Genetics, University of British
  JOURNAL
            Columbia, #416-2125 East Mall, NCE Building, Vancouver, BC V6T 124,
            Canada
FEATURES
                     Location/Qualifiers
                     1. .4714
     source
                     /organism="Homo sapiens"
                     /mol type="mRNA"
                     /db xref="taxon:9606"
                     /chromosome="7"
                     /map="7q11.2"
                     1. .4714
     gene
                     /gene="HIP1"
     CDS
                     245. .2989
                     /gene="HIP1"
                     /note="putative orf; similar to SLA2 Saccharomyces
                     cerevisiae, encoded by Genbank Accession Number Z22811,
                     and ZK370.3 protein in Caenorhabditis elegans, encoded by
                     Genbank Accession Number M98552"
                     /codon start=1
                     /product="huntingtin interacting protein 1"
                     /protein id="AAC51257.1"
                     /db xref="GI:2072423"
                     translation="MSRMWGHLSEGYGQLCSIYLKLLRTKMEYHTKNPRFPGNLQMSD/
                     RQLDEAGESDVNNFFQLTVEMFDYLECELNLFQTVFNSLDMSRSVSVTAAGQCRLAPL
                     IOVILDCSHLYDYTVKLLFKLHSCLPADTLQGHRDRFMEQFTKLKDLFYRSSNLQYFK
                     RLIOIPOLPENPPNFLRASALSEHISPVVVIPAEASSPDSEPVLEKDDLMDMDASQQN
                     LFDNKFDDIFGSSFSSDPFNFNSQNGVNKDEKDHLIERLYREISGLKAQLENMKTESQ
                     RVVLQLKGHVSELEADLAEQQHLRQQAADDCEFLRAELDELRRQREDTEKAQRSLSEI
                     ERKAQANEQRYSKLKEKYSELVQNHADLLRKNAEVTKQVSMARQAQVDLEREKKELED
                     SLERISDQGQRKTQEQLEVLESLKQELATSQRELQVLQGSLETSAQSEANWAAEFAEL
                     EKERDSLVSGAAHREEELSALRKELQDTQLKLASTEESMCQLAKDQRKMLLVGSRKAA
                     EQVIQDALNQLEEPPLISCAGSADHLLSTVTSISSCIEQLEKSWSQYLACPEDISGLL
                     HSITLLAHLTSDAIAHGATTCLRAPPEPADSLTEACKQYGRETLAYLASLEEEGSLEN
                     ADSTAMRNCLSKIKAIGEELLPRGLDIKQEELGDLVDKEMAATSAAIETATARIEEML
                     SKSRAGDTGVKLEVNERILGCCTSLMQAIQVLIVASKDLQREIVESGRGTASPKEFYA
                     \verb"KNSRWTEGLISASKAVGWGATVMVDAADLVVQGRGKFEELMVCSHEIAASTAQLVAAS
                     KVKADKDSPNLAQLQQASRGVNQATAGVVASTISGKSQIEETDNMDFSSMTLTQIKRQ
                     EMDSQVRVLELENELQKERQKLGELRKKHYELAGVAEGWEEGTEASPPTLQEVVTEKE
```

ORIGIN

```
Query Match 66.9%; Score 3035; DB 8; Length 4714; Best Local Similarity 99.9%; Pred. No. 0;
```

Matches	3135	; Conservative	0;	Mismatches	2;	Indels	0;	Gaps	0;
Qу	183	CAGCATCAATAAGGCCATT							242
Db	1	CAGCATCAATAAGGCCATT							60
Qу	243	GTGCATACTGGGCACCCA							302
Db	61	GTGCATACTGGGCACCCAC							120
Qу	303	CCTGCCTCTGTCTAGCAAG							362
Db	121	CCTGCCTCTGTCTAGCAA							180
Qу	363	CCTCCGAGATGGACACCC							422
Db	181	CCTCCGAGATGGACACCC							240
Qу	423	TGACATGAGCAGGATGTG							482
Db	241	TGACATGAGCAGGATGTG							300
QУ	483	CCTGAAACTGCTAAGAACG							542
Db	301	CCTGAAACTGCTAAGAAC							360
Qу	543	CCTGCAGATGAGTGACCG							602
Db	361	CCTGCAGATGAGTGACCGG							420
Qy	603	CCAGTTAACAGTGGAGAT							662
Db	421	CCAGTTAACAGTGGAGAT							480
Qу	663	ATTCAACTCCCTGGACAT							722
Db	481	ATTCAACTCCCTGGACAT							540
Qу		CGCCCGCTGATCCAGGT							782
Db		CGCCCGCTGATCCAGGT							600
Qy	783	TCTCTTCAAACTCCACTC							842
Db	601	TCTCTTCAAACTCCACTC							660
Qу	843	CATGGAGCAGTTTACAAA							902
Db	661	CATGGAGCAGTTTACAAA							720
QУ	903	CAAGCGGCTCATTCAGAT							962
Db	721	CAAGCGGCTCATTCAGAT							780
Qу	963	AGCCCTGTCAGAACATAT(							1022
Dh	781	ACCCCTCTCACAACATAT							840

QУ	1023	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	1082
Db	841	${\tt CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT}$	900
QУ	1083	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1142
Db	901	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	960
Qу	1143	CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	1202
Db	961	CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	1020
QУ	1203	AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	1262
Db	1021	AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	1080
Qу	1263	GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCCT	1322
Db	1081	GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCT	1140
QУ	1323	GCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	1382
Db	1141	GCGGCAGCAGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	1200
ДУ	1383	GCAGCGGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1442
Db	1201	GCAGCGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1260
QУ	1443	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1502
Db	1261	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1320
Qу	1503	CGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1562
Db	1321	CGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1380
Qy	1563	CCAGGTAGATTTGGAACGAGAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1622
Db	1381	CCAGGTAGATTTGGAACGAGAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1440
Qу	1623	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1682
Db	1441	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1500
Qу	1683	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1742
Db	1501	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1560
Qу	1743	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1802
Db	1561	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1620
Qу	1803	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1862
Db	1621	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1680

Qу	1863	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAAAT	1922
Db	1681		1740
Qу	1923	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1982
Db	1741	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1800
Qу	1983	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	2042
Db	1801	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	1860
Qу	2043	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	2102
Db	1861	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	1920
Qу	2103	AGAAGACATCAGTGGACTTCTCCATTACCCTGCTGGCCCACTTGACCAGCGACGC	2162
Db	1921	AGAAGACATCAGTGGACTTCTCCATTAACCCTGCTGGCCCACTTGACCAGCGACGC	1980
Qу	2163	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2222
Db	1981	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2040
Qу	2223	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2282
Db	2041	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2100
Qу	2283	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2342
Db	2101	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2160
Qy	2343	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2402
Db	2161	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2220
QУ	2403	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2462
Db	2221	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2280
Qy	2463	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2522
Db	2281	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2340
Qy	2523	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2582
Db	2341	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2400
QУ	2583	GGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2642
Db	2401	GGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2460
Qу	2643	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2702
Db	2461	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2520
QУ	2703	${\tt AGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGA}$	2762

Db	2521	
Qу	2763	GCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAA 2822
Db	2581	
Qy	2823	GGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT 2882
Db	2641	GGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT 2700
Qу	2883	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA 2942
Db	2701	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA 2760
QУ	2943	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA 3002
Db	2761	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA 2820
QУ	3003	TTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG 3062
Db	2821	TTCTCAGGTTAGGGTGCTAGAACTGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG 2880
QУ	3063	AGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC 3122
Db	2881	AGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC 2940
ДУ	3123	AGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAA 3182
Db	2941	AGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAA 3000
QУ	3183	CACCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCA 3242
Db	3001	CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCA 3060
Qу	3243	CAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGAGG 3302
Db	3061	CAGGCCAAATCCTTGGAGTCCCAGGGGCCACCCACTGCCATTACCCAGTGCCGAGG 3120
QУ	3303	ACATGCATGACACTTCC 3319
Db	3121	ACATGCATGACACTTCC 3137
RESULT 2 AX828392 LOCUS DEFINITION ACCESSION KEYWORDS SOURCE ORGANI	ON S N A A H SM H E	X828392 6626 bp DNA linear PAT 12-DEC-2003 equence 38 from Patent WO03074073. X828392 X828392.1 GI:39838392 omo sapiens (human) omo sapiens ukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; ammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;

Hominidae; Homo.

1

REFERENCE

```
TITLE
         Genes involved in regulating angiogenesis, pharmaceutical
         preparations containing same and applications thereof
 JOURNAL
         Patent: WO 03074073-A 38 12-SEP-2003;
         Gene Signal (FR)
                Location/Qualifiers
FEATURES
                1. .6626
   source
                /organism="Homo sapiens"
                /mol_type="unassigned DNA"
                /db xref="taxon:9606"
ORIGIN
                    66.9%;
                          Score 3035; DB 6; Length 6626;
 Query Match
                    99.9%;
                          Pred. No. 0;
 Best Local Similarity
 Matches 3135; Conservative
                         0; Mismatches
                                       2;
                                          Indels
                                                  0;
                                                           0;
                                                     Gaps
       183 CAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAAC 242
Qу
           1 CAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAAC 60
Db
       243 GTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTCAACCG 302
Qу
           61 GTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAACCG 120
Db
       303 CCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAACT 362
Qу
           121 CCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTTGTTCCACAAACT 180
Db
       363 CCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAG 422
Qу
           181 CCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAG 240
Db
       423 TGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTA 482
Qу
           241 TGACATGAGCAGGATGTGGGGCCACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTA 300
Db
       483 CCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGCAA 542
Qу
           301 CCTGAAACTGCTAAGAACCAAGATGGAGTACCACCAAAAATCCCAGGTTCCCAGGCAA 360
Db
       543 CCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTTTC 602
Qу
           361 CCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTTTT 420
Db
       603 CCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGT 662
Qу
           421 CCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGT 480
Db
       663 ATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCT 722
Qу
           481 ATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCT 540
Db
       723 CGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCT 782
Qу
           Db
       541 CGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCT 600
       783 TCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTT 842
Qу
```

Al-Mahmood, S., Colin, S. and Schneider, C.

**AUTHORS** 

Db	601		660
		CATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTT	
ДУ			720
Db			
Qу		CAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	
Db	721	CAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCCACCCA	780
Qу	963	AGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGA	1022
Db	781	AGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGA	840
Qу	1023	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	1082
Db	841	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	900
Qу	1083	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1142
Db	901	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	960
Qу	1143	CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	1202
Db	961		1020
Qу	1203	AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	1262
Db	1021		1080
Qу	1263	GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCCT	1322
Db	1081		1140
Qу	1323	GCGGCAGCAGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	1382
Db	1141		1200
Qу	1383	GCAGCGGGAGCACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1442
Db	1201		1260
Qу	1443	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1502
Db	1261		1320
Qу	1503	CGCTGACCTGCTGCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1562
Db	1321		1380
Qy	1563	CCAGGTAGATTTGGAACGAGAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1622
Db	1381		1440
Qy		CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	
= J			- · - <del>-</del>

Db	1441	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1500
Qу	1683	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1742
Db	1501	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1560
QУ	1743	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1802
Db	1561	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1620
Qy	1803	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1862
Db	1621	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1680
QУ	1863	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAAT	1922
Db	1681	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAAT	1740
QУ	1923	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1982
Db	1741	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1800
Qy	1983	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	2042
Db	1801	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	1860
QУ	2043	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	2102
Db	1861	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	1920
Qу	2103	AGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGC	2162
Db	1921	AGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGC	1980
QУ	2163	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2222
Db	1981	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2040
Qу	2223	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2282
Db	2041	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2100
Qу	2283	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2342
Db	2101	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2160
Qу	2343	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2402
Db	2161	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2220
Qу	2403	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2462
Db	2221	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2280
Qу	2463	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2522
Db	2281	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2340

Qу	2523	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2582
Db	2341	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2400
Qу	2583	GGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2642
Db	2401	GGACCTCCAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2460
Qy	2643	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2702
Db	2461	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2520
Qу	2703	AGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGA	2762
Db	2521	AGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGA	2580
Qу	2763	GCTAATGGTGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAA	2822
Db	2581	GCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAA	2640
Qy	2823	GGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT	2882
Db	2641	GGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT	2700
QУ	2883	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA	2942
Db	2701	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA	2760
Qу	2943	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA	3002
Db	2761	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA	2820
Qу	3003	TTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG	3062
Db	2821	TTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG	2880
QУ	3063	AGAGCTTCGGAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC	3122
Db	2881	AGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC	2940
Qy	3123	AGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAA	3182
Db	2941	AGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAA	3000
Qу	3183	CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCA	3242
Db	3001	CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCCAGCCA	3060
Qу	3243	CAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGAGG	3302
Db	3061	CAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGAGG	3120
Qy	3303	ACATGCATGACACTTCC 3319	
Db	3121		

```
RESULT 3
CO728008
                              4707 bp
                                       DNA
                                             linear PAT 03-FEB-2004
LOCUS
         CQ728008
         Sequence 13942 from Patent WO02068579.
DEFINITION
         CO728008
ACCESSION
         CO728008.1 GI:42295624
VERSION
KEYWORDS
SOURCE
         Homo sapiens (human)
         Homo sapiens
 ORGANISM
          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
         Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
         Hominidae; Homo.
REFERENCE
 AUTHORS
          Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.
          Kits, such as nucleic acid arrays, comprising a majority of
 TITLE
          humanexons or transcripts, for detecting expression and other uses
          thereof
          Patent: WO 02068579-A 13942 06-SEP-2002;
 JOURNAL
          PE Corporation (NY) (US)
                 Location/Qualifiers
FEATURES
                 1. .4707
    source
                 /organism="Homo sapiens"
                 /mol type="unassigned DNA"
                 /db xref="taxon:9606"
ORIGIN
                     66.8%; Score 3028; DB 6; Length 4707;
 Query Match
                            Pred. No. 0;
 Best Local Similarity
                     99.9%;
 Matches 3178; Conservative
                           0; Mismatches
                                          3;
                                             Indels
                                                      0;
                                                         Gaps
                                                                0;
        183 CAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAAC 242
Qу
           1 CAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAAC 60
Db
        243 GTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAACCG 302
Qу
            61 GTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAACCG 120
Db
        303 CCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAACT 362
Qу
            121 CCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAACT 180
Db
        363 CCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAG 422
Qу
            181 CCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAG 240
Db
        423 TGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTA 482
Qу
            241 TGACATGAGCAGGATGTGGGGCCACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTA 300
Db
        483 CCTGAAACTGCTAAGAACCAAGATGGAGTACCACCAAAAATCCCAGGTTCCCAGGCAA 542
Qу
            301 CCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGCAA 360
Db
        543 CCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTTTC 602
Qу
```

Db	361	CCTGCAGATGAGTGACCGCCAGCTGGACGAGGGCTGGAGAAAGTGACGTGAACAACTTTTT	420
QУ	603	CCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGT	662
Db	421	CCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGT	480
QУ	663	ATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCT	722
Db	481	ATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCT	540
Qy	723	CGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCT	782
Db	541	CGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCT	600
Qу	783	TCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTT	842
Db	601	TCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTT	660
QУ	843	CATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTT	902
Db	661	CATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTT	720
QУ	903	CAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	962
Db	721	CAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCCACCCA	780
Qγ	963	AGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGA	1022
Db	781	AGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGA	840
QУ	1023	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	1082
Db	841	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	900
QУ		ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	
Db	901	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	960
QУ		CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	
Db		CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	
QУ		AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	
Db		AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	
Qγ		GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCT	
Db		GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCT	
QУ		GCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	
Db		GCGGCAGCAGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	
QУ		GCAGCGGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	
Db	1201	GCAGCGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1260

Qу		AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	
Db	1261	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1320
Qу	1503	CGCTGACCTGCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1562
Db	1321	CGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1380
Qу	1563	CCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1622
Db	1381	CCAGGTAGATTTGGAACGAGAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1440
Qу	1623	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1682
Db	1441	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1500
Qу	1683	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1742
Db	1501	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1560
Qу	1743	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1802
Db	1561	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1620
Qу	1803	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1862
Db	1621	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1680
Qу	1863	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAAT	1922
Db	1681	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAAT	1740
Qу	1923	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1982
Db	1741	GCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT	1800
Qy	1983	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	2042
Db	1801	TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCAC	1860
Qy	2043	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	2102
Db .	1861	ATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCC	1920
Qу	2103	AGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGC	2162
Db	1921	AGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGC	1980
Qу	2163	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2222
Db	1981	CATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGAC	2040
Qу	2223	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2282
Db	2041	CGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA	2100

QУ	2283	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2342
Db	2101	GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGC	2160
Qy	2343	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2402
Db	2161	CATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCT	2220
Qу	2403	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2462
Db	2221	GGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGA	2280
Qy	2463	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2522
Db	2281	GGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2340
Qy	2523	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2582
Db	2341	GATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA	2400
Qу	2583	GGACCTCCAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2642
Db	2401	GGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTA	2460
Qу	2643	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2702
Db	2461	TGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGG	2520
Qу	2703	AGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGA	2762
Db	2521	AGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGA	2580
Qу	2763	GCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAA	2822
Db	2581	GCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAA	2640
QУ	2823	GGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT	2882
Db	2641	GGTGAAAGCTGATAAGGACAGCCCTAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT	2700
Qу	2883	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA	2942
Db	2701	GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGA	2760
Qу	2943	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA	3002
Db	2761	GACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGA	2820
Qу	3003	TTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG	3062
Db	2821	$\tt TTCTCAGGTTAGGGTGCTAGAGGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGG$	2880
Qy	3063	AGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC	3122
Db	2881	AGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAAC	2940
Qу	3123	${\tt AGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAA}$	3182

Db .	2941		3000
Qy	3183	CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCA	3242
Db	3001	CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCA	3060
Qу	3243	CAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGAGG	3302
Db	3061	CAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACCACCACTGCCATTACCCAGTGCCGAGG	3120
Qу	3303	ACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCATG	3362
Db	3121	ACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCATG	3180
Qу	3363	G 3363	
Db	3181	G 3181	

GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 10, 2006, 07:57:30; Search time 1667 Seconds

(without alignments)

18127.004 Million cell updates/sec

Title: US-10-007-047-1

Perfect score: 4534

Sequence: 1 ccaagcttggtacccccggg......gcatgcnntagagggcccta 4534

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 4996997 seqs, 3332346308 residues

Word size: 0

Total number of hits satisfying chosen parameters: 99933994

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : N\_Geneseq\_21:\*

1: geneseqn1980s:\*
2: geneseqn1990s:\*
3: geneseqn2000s:\*
4: geneseqn2001as:\*
5: geneseqn2001bs:\*

6: geneseqn2002as:\*
7: geneseqn2002bs:\*
8: geneseqn2003as:\*

9: geneseqn2003bs:\*

10: geneseqn2003cs:\*
11: geneseqn2003ds:\*
12: geneseqn2004as:\*
13: geneseqn2004bs:\*
14: geneseqn2005s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

						SUMMARI	P2
			8				
Resi			Query				
1	No.	Score	Match	Length	DB	ID	Description
	1	4534	100.0	4534	10	ACC85533	Acc85533 Human HIP
	2	4534	100.0	4534	14	AEB71165	Aeb71165 DNA encod
	3	3911	86.3	3911	10	ACC85534	Acc85534 Human HIP
	4	3911	86.3	3911	14	AEB71167	Aeb71167 DNA encod
	5	3079	67.9	6623	13	ACN38651	Acn38651 Tumour-as
	6	3079	67.9	6624	13	ADQ86162	Adq86162 Human tum
	7	3035	66.9	6626	12	ADK60463	Adk60463 Angiogene
	8	3035	66.9	6626	12	ADK60764	Adk60764 Angiogene
	9	3035	66.9	6626	12	ADN01766	Adn01766 Human hun
	10	3035	66.9	6626	12	ADP73086	Adp73086 Angiogene
	11	3035	66.9	6626	13	ADP23862	Adp23862 PRO polyp
	12	2675	59.0	2745	14	ADV42966	Adv42966 Human psy
	13	2619	57.8	4796	2	AAT67187	Aat67187 Huntingti
	14	2619	57.8	4796	3	AAZ58746	Aaz58746 Human hun
	15	1160	25.6	1173	14	ADV77138	Adv77138 Huntingto
	16	973	21.5	65454	12	ADN01773	Adn01773 Human hun
	17	955	21.1	3715	3	AAZ58781	Aaz58781 Human HIP
	18	907	20.0	1164	2	AAT67186	Aat67186 Huntingti
	19	907	20.0	1164	3	AAZ58745	Aaz58745 Human hun
	20	554	12.2	601	6	AAS61792	Aas61792 Lung smal
С	21	394	8.7	5853	12	ADK60309	Adk60309 Angiogene
С	22	394	8.7	5853	12	ADK60610	Adk60610 Angiogene
С	23	394	8.7	5853	12	ADP73233	Adp73233 Angiogene
С	24	393	8.7	393	12	ADK60263	Adk60263 Antisense
С	25	393	8.7	393	12	ADK60564	Adk60564 Antisense
С	26	393	8.7	393	12	ADP73187	Adp73187 Angiogene
С	27	363	8.0	482	10	ADD32881	Add32881 Human mit
	28	331	7.3	331	6	AAS61782	Aas61782 Lung smal
	29	259	5.7	518	4	AAI42717	Aai42717 Probe #11
	30	259	5.7	518	4	AAK36916	Aak36916 Human bon
	31	259	5.7	518	4	AAK11093	Aak11093 Human bra
	32	259	5.7	518	4	ABS36587	Abs36587 Human liv
	33	259	5.7	518	6	ABS10924	Abs10924 Human gen
	34	187	4.1	436	3	AAZ58765	Aaz58765 Human hun
	35	184	4.1	184	4	AAI55778	Aai55778 Probe #24
	36	184	4.1	184	4	AAK49859	Aak49859 Human bon
	37	184	4.1	184	4	AAK23763	Aak23763 Human bra
	38	184	4.1	184	4	ABS49496	Abs49496 Human liv
	39	184	4.1	184	6	ABS23356	Abs23356 Human gen
	40	175	3.9	279	3	AAZ58780	Aaz58780 Human hun
	41	163	3.6	404	10	ACC85536	Acc85536 Human HIP
	42	163	3.6	404	14	AEB71169	Aeb71169 DNA of HI

```
      43
      148
      3.3
      485
      3
      AAZ58769
      Aaz58769 Human hun

      44
      144
      3.2
      565
      3
      AAZ58760
      Aaz58760 Human hun

      45
      143
      3.2
      577
      4
      AAI17388
      Aai17388 Probe #73
```

#### ALIGNMENTS

```
RESULT 1
ACC85533
     ACC85533 standard; DNA; 4534 BP.
ID
XX
AC
     ACC85533;
XX
DT
     15-OCT-2003 (first entry)
XX
DE
     Human HIP1 cancer marker coding sequence.
XX
     Human; HIP1; cancer; cancer marker; epithelial cancer; cytostatic; gene;
KW
KW
XX
     Homo sapiens.
os
XX
     WO2003043566-A2.
PN
XX
PD
     30-MAY-2003.
XX
     12-NOV-2002; 2002WO-US036175.
ΡF
XX
     15-NOV-2001; 2001US-0335276P.
PR
PR
     06-DEC-2001; 2001US-00007047.
XX
PA
     (UNMI ) UNIV MICHIGAN.
XX
PΙ
     Ross T, Mizukami I, Roa D;
XX
     WPI; 2003-457565/43.
DR
XX
PT
     New antibody binding to HIP1 but not to normal epithelium, useful for
     diagnosing and treating epithelial cancers, particularly colon and
PT
PT
     prostate cancer.
XX
     Disclosure; Fig 7; 143pp; English.
PS
XX
     The present invention relates to an antibody that specifically binds to
CC
     HIP1 but does not specifically bind to the normal epithelium of prostate
CC
     or colon. The antibody can be used for diagnosing and treating epithelial
CC
     cancers, particularly colon and prostate cancer. The present sequence is
CC
CC
     the human HIP1 coding sequence
XX
     Sequence 4534 BP; 1176 A; 1230 C; 1232 G; 894 T; 0 U; 2 Other;
SQ
                          100.0%; Score 4534; DB 10; Length 4534;
  Query Match
                          100.0%;
                                   Pred. No. 0;
  Best Local Similarity
                               0; Mismatches
                                                                  0;
                                                                              0;
                                                   0; Indels
                                                                     Gaps
  Matches 4534; Conservative
```

Qу

Db	1		60
Qу	61	GATCGGATGGCCAGCTCCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGG	120
Db	61		120
Qу	121	CGCGGGGTCGGCGTGGGCTGGAGGCGGGGGGGGGGGGGG	180
Db	121	CGCGGGGTCGGCTGGGCTGGAGGCGGGGGGGGGGGGGGG	180
Qу	181	GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA	240
Db	181	GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA	240
Qу	241	ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAAC	300
Db	241	ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTCAAC	300
Qу	301	CGCCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAA	360
Db	301		360
Qу	361	CTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTG	420
Db	361		420
Qу	421	AGTGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATC	480
Db	421		480
Qу	481	TACCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGC	540
Db	481		540
Qу	541	AACCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTT	600
Db	541		600
Qу	601	TCCCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACA	660
Db	601		660
Qу	661	GTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGC	720
Db	661		720
Qy	721	CTCGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAG	780
Db	721		780
Qу	781	CTTCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGC	840
Db	781		840
Qу	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900

Db	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900
Qу	901	TTCAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	960
Db			
Qу	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
Db	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
QУ	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
Db	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
QУ	1081	TTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1140
Db	1081		1140
Qу	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
Db	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
Qу	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
Db	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
QУ	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAC	1320
Db	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCAC	1320
Qу	1321	CTGCGGCAGCAGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGG	1380
Db	1321	CTGCGGCAGCAGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGG	1380
Qγ	1381	AGGCAGCGGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Db	1381	AGGCAGCGGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Qу	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
Db	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
Qy	1501	CACGCTGACCTGCTGCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
Db	1501	CACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
Qу	1561	GCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGT	1620
Db	1561	GCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGT	1620
Qу	1621	GACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAA	1680
Db	1621	GACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAA	1680
QУ	1681	CTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAG	1740
Db	1681	CTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAG	1740

Qу	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Db	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Qу	1801	AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACT	1860
Db	1801	AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACT	1860
Qу	1861	CAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAA	1920
Db	1861	CAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAA	1920
Qу	1921	ATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAG	1980
Db	1921	ATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAG	1980
Qу	1981	CTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTC	2040
Db	1981	CTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCCCACGGTC	2040
Qу	2041	ACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGC	2100
Db	2041	ACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGC	2100
Qу	2101	CCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGAC	2160
Db	2101	CCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGAC	2160
Qу	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220
Db	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220
Qу	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Db	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Qу	2281	GAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
Db	2281	GAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
Qy	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
Db	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
QУ	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
Db	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
QУ	2461	GAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520
Db	2461		2520
Qу	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580
Db	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580

Qy	2581	AAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
Db	2581	AAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
Qy	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
Db	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
Qу	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
Db	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
Qу	2761	GAGCTAATGGTGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
Db	2761	GAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
Qy	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
Db	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
Qy	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Db	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Qy	2941	GAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	3000
Db	2941	GAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	3000
Qy	3001	GATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTG	3060
Db	3001		3060
Qy	3061	GGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGA	3120
Db	3061	GGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGA	3120
Qу	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
Db	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
Qу	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
Db	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
Qy	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGA	3300
Db	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGA	3300
Qу	3301	GGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCA	3360
Db	3301		3360
Qy	3361	TGGATTTCCACTGCTTCTTATGGTGGTTGGTTGGTTTTTTTT	3420
Db	3361		3420
Qy	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480

Db	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480
Qу	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Db	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Qy	3541	CGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCT	3600
Db	3541	CGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCT	3600
Qy	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Db	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Qy	3661	TGAATCCCGGCGGAAAGCCTCTGTCCGCCTTTACAAGGGAGAAGACAACAGAAAGAGGGA	3720
Db	3661	TGAATCCCGGCGGAAAGCCTCTGTCCGCCTTTACAAGGGAAAGACAACAGAAAGAGGGA	3720
Qу	3721	CAAGAGGGTTCACACAGCCCAGTTCCCGTGACGAGGCTCAAAAACTTGATCACATGCTTG	3780
Db	3721	CAAGAGGGTTCACACAGCCCAGTTCCCGTGACGAGGCTCAAAAACTTGATCACATGCTTG	3780
Qу	3781	AATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Db	3781	AATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Qу	3841	TCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGAGTGATTCCCAAC	3900
Db	3841	TCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGAGTGATTCCCAAC	3900
Qy	3901	TCCTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTA	3960
Db	3901	TCCTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTA	3960
QУ	3961	CGCAATTGACAAACCCGGAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATAC	4020
Db	3961	CGCAATTGACAAACCCGGAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATAC	4020
Qу	4021	TTGGTTTGCTACCCTTAGTATTTATTACTAACCTCCCTTAAGCAGCAACAGCCTACAAAG	4080
Db	4021	TTGGTTTGCTACCCTTAGTATTTATTACTAACCTCCCTTAAGCAGCAACAGCCTACAAAG	4080
Qу	4081	AGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAAGCTCATCTTTCTGCCCG	4140
Db	4081	AGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAAGCTCATCTTTCTGCCCG	4140
Qу	4141	GCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGG	4200
Db	4141	GCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGG	4200
Qу	4201	ATCCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAGGACAGAG	4260
Db	4201	ATCCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAGGACAGAG	4260
Qу	4261	CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA	4320

```
Db
        4261 CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA 4320
        4321 TGAGGACAGAGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT 4380
Qу
            4321 TGAGGACAGAGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT 4380
Db
        4381 CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT 4440
Qу
            4381 CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT 4440
Db
        4441 TCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCGGAATTCCTGCAGCCC 4500
Qу
            4441 TCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCGGAATTCCTGCAGCCC 4500
Db
        4501 GGGCGGCCGCTCGAGCATGCNNTAGAGGGCCCTA 4534
Qy
            4501 GGGCGGCCGCTCGAGCATGCNNTAGAGGGCCCTA 4534
Db
RESULT 2
AEB71165
    AEB71165 standard; DNA; 4534 BP.
ΙD
XX
AC
    AEB71165;
XX
    20-OCT-2005
               (first entry)
DT
XX
    DNA encoding full length HIP1, SEQ ID NO:1.
DΕ
XX
    Cancer; cytosatic; diagnosis; genetic marker; HIP1; immunodiagnosis;
KW
    drug screening; western blot; ELISA; ds; gene.
ΚW
XX
os
    Homo sapiens.
XX
                  Location/Qualifiers
FΗ
    Key
                  58. .3171
FT
    CDS
                   /*tag=a
FT
                  /product= "HIP1"
FΤ
XX
PN
    WO2005072457-A2.
XX
PD
    11-AUG-2005.
XX
PF
    28-JAN-2005; 2005WO-US003330.
XX
PR
    29-JAN-2004; 2004US-00767325.
XX
    (UNMI ) UNIV MICHIGAN.
PΑ
XX
PΙ
    Ross TS, Mizukami IF;
XX
    WPI; 2005-582467/59.
DR
DR
    P-PSDB; AEB71166.
XX
PΤ
    Detecting cancer (especially prostate or colon cancer) comprises
    providing a sample from a subject suspected of having cancer, and
PΤ
    detecting the presence or absence of antibodies to HIP1 in the sample.
PΤ
```

```
XX
    Disclosure; SEQ ID NO 1; 118pp; English.
PS
XX
    The present invention relates to compositions and methods for cancer
CC
    diagnosis, including HIP1 cancer markers. HIP1 is a cofactor in clathrin
CC
CC
    mediated trafficking. HIP1 over-expression may dysregulate growth factor
CC
    receptor cell surface density or growth factor secretion, as a
CC
    consequence of its role in clathrin-mediated trafficking. Specifically
    claimed is a method of detecting cancer by providing a sample from a
CC
CC
    subject suspected of having cancer, and detecting the presence or absence
CC
    of antibodies to HIPl in the sample. Also disclosed are methods of
    screening for anticancer drugs; drugs identified by the above method; and
CC
CC
    methods of treating cancer. The cancer is selected from prostate cancer
CC
    and colon cancer. The detecting step comprises exposing the sample to a
    HIP1 antigen. It comprises a Western blot or an ELISA assay. The reagent
CC
    comprises a HIP1 antigen, and a second antibody that binds to the
CC
CC
    antibodies to HIP1. The present sequence is DNA encoding full length
CC
    HIP1.
XX
    Sequence 4534 BP; 1176 A; 1230 C; 1232 G; 894 T; 0 U; 2 Other;
SQ
                             Score 4534; DB 14; Length 4534;
                     100.0%;
                             Pred. No. 0;
 Best Local Similarity
                     100.0%;
 Matches 4534; Conservative
                           0; Mismatches
                                          0:
                                             Indels
                                                                0;
                                                         Gaps
          1 CCAAGCTTGGTACCCCCGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATG 60
Qy
           1 CCAAGCTTGGTACCCCGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATG 60
Db
         61 GATCGGATGCCAGCTCCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGG 120
Qу
           61 GATCGGATGGCCAGCTCCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGG 120
Db
        121 CGCGGGGTCGGCGTGGGCTGGAGGCGGCGGAGGCGCGAGAGCTTCGAGCGGACTCAGACT 180
Qу
           Db
        181 GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA 240
Qу
           Db
        181 GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA 240
        241 ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTCAAC 300
Qу
           Db
        241 ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAAC 300
        301 CGCCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAA 360
Qу
           301 CGCCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAA 360
Db
        361 CTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTG 420
Qy
           361 CTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTG 420
Db
        421 AGTGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATC 480
Qy
```

421 AGTGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATC 480

Db

Qу	481	TACCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGC	540
Db	481	TACCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGC	540
Qу		AACCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTT	600
Db		AACCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTT	600
Qy	601	TCCCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACA	660
Db	601	TCCCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACA	660
Qy	661	GTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGC	720
Db	661	GTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGC	720
Qу	721	CTCGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAG	780
Db	721	CTCGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAG	780
Qу	781	CTTCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGC	840
Db	781	CTTCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGC	840
Qу	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900
Db	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900
Qу	901	TTCAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	960
Db	901	TTCAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	960
Qу	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
Db	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
Qу	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
Db	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
Qу	1081	TTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1140
Db	1081	TTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1140
Qу	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
Db	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
Qу	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
Db	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
Qу	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCAC	1320
Db	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCAC	1320
Ov	1321	CTGCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGG	1380

Dh	1201		1200
Db			
Qу		AGGCAGCGGGAGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Db	1381	AGGCAGCGGGAGCACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Qу	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
Db	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
Qу	1501	CACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
Db	1501	CACGCTGACCTGCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
Qу	1561		1620
Db	1561		1620
Qу	1621	GACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAA	1680
Db	1621		1680
Qу	1681	CTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAG	1740
Db	1681		1740
Qу	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Db	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Qу	1801	AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACT	1860
Db	1801		1860
Qу	1861	CAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAA	1920
Db	1861		1920
Qy	1921	ATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAG	1980
Db	1921		1980
Qу	1981	CTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTC	2040
Db	1981		2040
Qу	2041	ACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGC	2100
Db	2041		2100
Qу	2101	CCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGAC	2160
Db	2101		2160
Qу	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220

Db	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220
QУ	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Db	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Qу	2281	GAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
Db	2281	GAGGGAAGCCTTGAGAATGCCGACAGCCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
QУ	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
Db	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
Qу	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
Db	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
Qy	2461	GAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520
Db	2461	GAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520
QУ	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580
Db	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580
QУ	2581	AAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
Db	2581	AAGGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
QУ	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
Db	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
QУ	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
Db	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
QУ	2761	GAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
Db	2761	GAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
QУ	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
Db	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
QУ	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Db	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Qу		GAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	
Db	2941	GAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	3000
QУ		GATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTG	
Dh	3001	GATTCTCAGGTTAGGGTGCTAGAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTG	3060

Qу		GGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGA	
Db			
Qу	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
Db	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
Qу	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
Db	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
Qу	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGA	3300
Db	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGA	3300
Qу	3301	GGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCA	3360
Db	3301	GGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCA	3360
QУ	3361	TGGATTTCCACTGCTTCTTATGGTGGTTGGTTGGTTTTTTTT	3420
Db	3361		3420
Qу	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480
Db	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480
Qу	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Db	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Qу	3541	CGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCT	3600
Db	3541		3600
Qу	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Db	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Qу	3661	TGAATCCCGGCGGAAAGCCTCTGTCCGCCTTTACAAGGGAGAAGACAACAGAAAGAGGGA	3720
Db	3661	TGAATCCCGGCGGAAAGCCTCTGTCCGCCTTTACAAGGGAGAAGACAACAGAAAGAGGGA	3720
Qу	3721	CAAGAGGGTTCACACAGCCCAGTTCCCGTGACGAGGCTCAAAAACTTGATCACATGCTTG	3780
Db	3721	CAAGAGGGTTCACACAGCCCAGTTCCCGTGACGAGGCTCAAAAACTTGATCACATGCTTG	3780
Qу	3781	AATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Db	3781	AATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Qу	3841	TCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGGAGTGATTCCCAAC	3900
Db	3841		3900

QУ	3901	TCCTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTA	3960
Db	3901	TCCTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTA	3960
Qу	3961	CGCAATTGACAAACCCGGAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATAC	4020
Db	3961	CGCAATTGACAAACCCGGAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATAC	4020
QУ	4021	TTGGTTTGCTACCCTTAGTATTTATTACTAACCTCCCTTAAGCAGCAACAGCCTACAAAG	4080
Db	4021	TTGGTTTGCTACCCTTAGTATTTATTACTAACCTCCCTTAAGCAGCAACAGCCTACAAAG	4080
Qу	4081	AGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAAGCTCATCTTTCTGCCCG	4140
Db	4081	AGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAAGCTCATCTTTCTGCCCG	4140
Qу	4141	GCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGG	4200
Db	4141	GCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGG	4200
QУ	4201	ATCCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAAGGACAGAG	4260
Db	4201	ATCCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAAGGACAGAG	4260
Qу	4261	CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA	4320
Db	4261	CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA	4320
Qу	4321	TGAGGACAGAGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT	4380
Db	4321	TGAGGACAGAGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT	4380
Qy	4381	CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT	4440
Db	4381	CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT	4440
QУ	4441	TCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCGGAATTCCTGCAGCCC	4500
Db	4441	TCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCGGAATTCCTGCAGCCC	4500
Qy	4501	GGGCGGCCGCTCGAGCATGCNNTAGAGGGCCCTA 4534	
Db	4501	GGGCGGCCGCTCGAGCATGCNNTAGAGGGCCCTA 4534	

GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

January 10, 2006, 11:46:40 ; Search time 523 Seconds Run on: (without alignments)

15410.066 Million cell updates/sec

US-10-007-047-1 Title:

Perfect score: 4534

Sequence: 1 ccaagcttggtacccccggg.....gcatgcnntagagggcccta 4534

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 1303057 seqs, 888780828 residues

Word size: 0

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Issued Patents\_NA:\*

1: /cgn2\_6/ptodata/1/ina/1\_COMB.seq:\*

2: /cgn2 6/ptodata/1/ina/5 COMB.seq:\*

3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*

4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*

5: /cgn2 6/ptodata/1/ina/H\_COMB.seq:\*

6: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*

7: /cgn2\_6/ptodata/1/ina/PP\_COMB.seq:\*

8: /cgn2 6/ptodata/1/ina/RE\_COMB.seq:\*

9: /cgn2\_6/ptodata/1/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

	ult No.	Score	% Query Match	Length	DB	ID	Description
	<b></b> -	2779	61.3	 6628	 3	US-09-949-016-4586	Sequence 4586, Ap
	1 2	2619	57.8	4796	3	US-09-085-199B-3	Sequence 3, Appli
				68702	3	US-09-949-016-16328	
	3	973	21.5		_		Sequence 16328, A
	4	955	21.1	3715	3	US-09-085-199B-44	Sequence 44, Appl
	5	907	20.0	1164	3	US-09-085-199B-1	Sequence 1, Appli
	6	187	4.1	436	3	US-09-085-199B-28	Sequence 28, Appl
С	7	187	4.1	601	3	US-09-949-016 <b>-</b> 163605	Sequence 163605,
	8	175	3.9	279	3	US-09-085-199B-43	Sequence 43, Appl
	9	148	3.3	485	3	US-09-085-199B-32	Sequence 32, Appl
	10	144	3.2	565	3	US-09-085-199B-23	Sequence 23, Appl
	11	143	3.2	578	3	US-09-085-199B-25	Sequence 25, Appl
	12	138	3.0	498	3	US-09-085-199B-36	Sequence 36, Appl
	13	136	3.0	468	3	US-09-085-199B-33	Sequence 33, Appl
	14	126	2.8	418	3	US-09-085-199B-42	Sequence 42, Appl
	15	119	2.6	359	3	US-09-085-199B-30	Sequence 30, Appl
	16	114	2.5	427	3	US-09-085-199B-37	Sequence 37, Appl
С	17	113	2.5	601	3	US-09-949-016-163645	Sequence 163645,
С	18	113	2.5	601	3	US-09-949-016-163646	Sequence 163646,
С	19	113	2.5	601	3	US-09-949-016 <b>-</b> 163647	Sequence 163647,
	20	110	2.4	421	3	US-09-085-199B-35	Sequence 35, Appl
С	21	110	2.4	601	3	US-09-949-016-163613	Sequence 163613,

```
22
          108
                2.4
                        351 3 US-09-085-199B-41
                                                           Sequence 41, Appl
                                                           Sequence 31, Appl
                2.3
                        209 3
   23
          104
                               US-09-085-199B-31
                        437 3
   24
          103
                2.3
                               US-09-085-199B-40
                                                           Sequence 40, Appl
  25
          103
                2.3
                        601 3
                               US-09-949-016-163567
                                                           Sequence 163567,
   26
          102
                2.2
                        390 3
                               US-09-085-199B-26
                                                           Sequence 26, Appl
  27
          102
                2.2
                        601 3
                               US-09-949-016-163602
                                                           Sequence 163602,
C
  28
          100
                2.2
                        601 3
                               US-09-949-016-163634
                                                           Sequence 163634,
C
                        502 3
   29
          97
                               US-09-085-199B-39
                                                           Sequence 39, Appl
                2.1
                        601 3
                                                           Sequence 163624,
С
  30
           97
                2.1
                               US-09-949-016-163624
  31
           97
                2.1
                        601 3
                               US-09-949-016-163626
                                                           Sequence 163626,
С
  32
           97
                2.1
                        601 3
                               US-09-949-016-163627
                                                           Sequence 163627,
           94
                2.1
                        193 3
                               US-09-085-199B-17
                                                           Sequence 17, Appl
   33
           90
                2.0
                        393 3
                               US-09-085-199B-34
                                                           Sequence 34, Appl
   34
   35
           89
                2.0
                        469 3
                               US-09-085-199B-29
                                                           Sequence 29, Appl
   36
           77
                1.7
                        327 3
                               US-09-085-199B-20
                                                           Sequence 20, Appl
   37
           77
                        331 3
                                                           Sequence 21, Appl
                1.7
                               US-09-085-199B-21
  38
           77
                        601 3
                               US-09-949-016-163584
                                                           Sequence 163584,
                1.7
   39
           73
                        547 3
                               US-09-085-199B-27
                                                           Sequence 27, Appl
                1.6
                1.5
                        447 3 US-09-621-976-11364
                                                           Sequence 11364, A
   40
           68
                        516 3 US-09-085-199B-16
                                                           Sequence 16, Appl
   41
           68
                1.5
                1.5
                        601 3 US-09-949-016-163562
                                                           Sequence 163562,
  42
           68
C
                        601 3 US-09-949-016-163637
                1.5
                                                           Sequence 163637,
  43
           67
                        601 3 US-09-949-016-163638
  44
           67
                 1.5
                                                           Sequence 163638,
С
                        601 3 US-09-949-016-163639
                                                           Sequence 163639,
  45
           67
                 1.5
```

#### ALIGNMENTS

```
US-09-949-016-4586
; Sequence 4586, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
  APPLICANT: VENTER, J. Craig et al.
   TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
   TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES
THEREOF
; FILE REFERENCE: CL001307
  CURRENT APPLICATION NUMBER: US/09/949,016
   CURRENT FILING DATE: 2000-04-14
   PRIOR APPLICATION NUMBER: 60/241,755
   PRIOR FILING DATE: 2000-10-20
   PRIOR APPLICATION NUMBER: 60/237,768
  PRIOR FILING DATE: 2000-10-03
  PRIOR APPLICATION NUMBER: 60/231,498
   PRIOR FILING DATE: 2000-09-08
  NUMBER OF SEQ ID NOS: 207012
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4586
    LENGTH: 6628
    TYPE: DNA
    ORGANISM: Human
US-09-949-016-4586
                          61.3%; Score 2779; DB 3; Length 6628;
  Query Match
  Best Local Similarity 99.8%; Pred. No. 0;
```

RESULT 1

Matches	3179	; Conservative	0;	Mismatches	2;	Indels	4;	Saps	1;
Qу	183	CAGCATCAATAAGGCCAT							242
Db	1								60
Qу	243	GTGCATACTGGGCACCCA							302
Db	61	GTGCATACTGGGCACCCA							120
Qy	303	CCTGCCTCTGTCTAGCAA							362
Db	121	CCTGCCTCTGTCTAGCAA							180
Qy	363	CCTCCGAGATGGACACCC							422
Db	181	CCTCCGAGATGGACACCC							240
Qy	423	TGACATGAGCAGGATGTG							482
Db	241	TGACATGAGCAGGATGTG							300
Qу	483	CCTGAAACTGCTAAGAAC							542
Db	301	CCTGAAACTGCTAAGAAC							360
Qу	543	CCTGCAGATGAGTGACCG							602
Db	361	CCTGCAGATGAGTGACCG							420
Qу	603	CCAGTTAACAGTGGAGAT							662
Db	421	CCAGTTAACAGTGGAGAT	GTTT	GACTACCTGGAGTG	rgaa	CTCAACCTCT"	TCCAAA	ACAGT	480
Qу	663	ATTCAACTCCCTGGACAT							722
Db	481	ATTCAACTCCCTGGACAT	GTCC	CCGCTCTGTGTCCGT	GACG	GCAGCAGGGC	AGTGC	CGCCT	540
Qу	723	CGCCCGCTGATCCAGGT							782
Db	541	CGCCCGCTGATCCAGGT							600
Qу	783	TCTCTTCAAACTCCACTC							842
Db	601	TCTCTTCAAACTCCACTC							660
QУ	843	CATGGAGCAGTTTACAAA							902
Db	661	CATGGAGCAGTTTACAAA	GTTG	GAAAGATCTGTTCTA	CCGC'	rccagcaacc'	TGCAG	FACTT	720
QУ	903	CAAGCGGCTCATTCAGAT							962
Db	721	CAAGCGGCTCATTCAGAT							780
ДÀ		AGCCCTGTCAGAACATAT	1111				11111		
Db	781	AGCCCTGTCAGAACATAT	'CAGC	CCTGTGGTGGTGAT	CCCT	GCAGAGGCCT	CATCC	CCCGA	840

Qу	1023	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	1082
Db	841	CAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT	900
Qу	1083	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1142
Db	901	ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	960
Qу	1143	CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	1202
Db	961	CAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAG	1020
Qу	1203	AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	1262
Db	1021	AGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGT	1080
Qy	1263	GCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCT	1322
Db	1081		1140
Qу	1323	GCGGCAGCAGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	1382
Db	1141	GCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG	1200
Qу	1383	GCAGCGGGAGGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1442
Db	1201	GCAGCGGGAGCACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCA	1260
Qу	1443	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1502
Db	1261	AGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCA	1320
Qу	1503	CGCTGACCTGCTGCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1562
Db	1321	CGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGC	1380
Qу	1563	CCAGGTAGATTTGGAACGAGAAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGA	1622
Db	1381		1440
Qу	1623	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1682
Db	1441	CCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT	1500
Qу	1683	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1742
Db	1501	TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTC	1560
Qу	1743	AGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAG	1802
Db	1561		1620
Qу	1803	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1862
Db	1621	TGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCA	1680

Qy	1863	GCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAA	1918
Db	1681	GCTCAAACTGGCCAGCACAGAGGCAAGAATCTATGTGCCAGCTTGCCAAAGACCAACGAA	1740
Qу	1919	AAATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACC	1978
Db	1741	AAATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACC	1800
Qу	1979	AGCTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGG	2038
Db	1801	AGCTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGG	1860
QУ	2039	TCACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCT	2098
Db	1861	TCACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCT	1920
Qу	2099	GCCCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCG	2158
Db	1921	GCCCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCG	1980
Qу	2159	ACGCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCAC	2218
Db	1981	ACGCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCAC	2040
Qу	2219	TGACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGG	2278
Db	2041	TGACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGG	2100
QУ	2279	AAGAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCA	2338
Db	2101	AAGAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCA	2160
Qy	2339	AGGCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGG	2398
Db	2161	AGGCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGG	2220
Qу	2399	ACCTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAA	2458
Db	2221	ACCTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAA	2280
Qy	2459	TAGAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATG	2518
Db	2281	TAGAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATG	2340
Qу	2519	AAAGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCT	2578
Db	2341	AAAGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCT	2400
Qу	2579	CTAAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGT	2638
Db	2401	CTAAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGT	2460
Qу	2639	TTTATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCT	2698
Db	2461	TTTATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCT	2520
Ov	2699	GGGGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTG	2758

Db	2521	
Qy	2759	AGGAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCAT 2818
Db	2581	
QУ	2819	CCAAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGG 2878
Db	2641	
Qy	2879	GAGTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCG 2938
Db	2701	GAGTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCG 2760
Qу	2939	AAGAGACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGA 2998
Db	2761	AAGAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGA 2820
QУ	2999	TGGATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAAC 3058
Db	2821	TGGATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAAC 2880
QУ	3059	TGGGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAG 3118
Db	2881	TGGGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAG 2940
Qу	3119	GAACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAA 3178
Db	2941	GAACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAA 3000
QУ	3179	CCAACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCA 3238
Db	3001	CCAACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCA 3060
QУ	3239	GCCACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCC 3298
Db	3061	GCCACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACCACTGCCATTACCCAGTGCC 3120
Qу	3299	GAGGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACC 3358
Db	3121	GAGGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACC 3180
Qу	3359	CATGG 3363
Db	3181	CATGG 3185  GenCore version 5.1.6
		Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 10, 2006, 11:58:14; Search time 2213 Seconds (without alignments)
16942.323 Million cell updates/sec

Title: US-10-007-047-1

Perfect score: 4534

Sequence: 1 ccaagcttggtacccccggg......gcatgcnntagagggcccta 4534

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 9793542 seqs, 4134689005 residues

Word size: 0

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database: Published Applications NA Main:\*

1: /cgn2\_6/ptodata/1/pubpna/US07\_PUBCOMB.seq:\*

2: /cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*

3: /cgn2\_6/ptodata/1/pubpna/US09A\_PUBCOMB.seq:\*

4: /cgn2 6/ptodata/1/pubpna/US09B PUBCOMB.seq:\*

5: /cgn2 6/ptodata/1/pubpna/US10A PUBCOMB.seq:\*

6: /cgn2\_6/ptodata/1/pubpna/US10B\_PUBCOMB.seq:\*

7: /cgn2\_6/ptodata/1/pubpna/US10C\_PUBCOMB.seq:\*

8: /cgn2\_6/ptodata/1/pubpna/US10D\_PUBCOMB.seq:\*

9: /cgn2 6/ptodata/1/pubpna/US10E PUBCOMB.seq:\*

10: /cgn2 6/ptodata/1/pubpna/US11\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

			용				
Res	ult		Query				
	No.	Score	Match	Length	DB	ID	Description
	1	4534	100.0	4534	6	US-10-007-047-1	Sequence 1, Appli
	2	4534	100.0	4534	8	US-10-767-325-1	Sequence 1, Appli
	3	3911	86.3	3911	6	US-10-007-047-3	Sequence 3, Appli
	4	3911	86.3	3911	8	US-10-767-325-3	Sequence 3, Appli
	5	3035	66.9	4714	9	US-10-756-149-1417	Sequence 1417, Ap
	6	3035	66.9	6626	7	US-10-293-864-4	Sequence 4, Appli
	7	3035	66.9	6626	9	US-10-934-998-38	Sequence 38, Appl
	8	973	21.5	65454	7	US-10-293-864-11	Sequence 11, Appl
	9	554	12.2	601	3	US-09-833-790-343	Sequence 343, App
С	10	394	8.7	5853	9	US-10-934-998-185	Sequence 185, App
С	11	393	8.7	393	9	US-10-934-998-139	Sequence 139, App
	12	331	7.3	331	3	US-09-833-790-333	Sequence 333, App
	13	259	5.7	518	3	US-09-864-761-13307	Sequence 13307, A
	14	184	4.1	184	3	US-09-864-761-29870	Sequence 29870, A
	15	163	3.6	404	6	US-10-007-047-6	Sequence 6, Appli
	16	163	3.6	404	8	US-10-767-325-6	Sequence 6, Appli
	17	143	3.2	577	3	US-09-864-761-8117	Sequence 8117, Ap
	18	141	3.1	141	3	US-09-864-761-24860	Sequence 24860, A
	19	141	3.1	2080	6	US-10-108-260A-387	Sequence 387, App

```
c 20
          126
                 2.8
                        161 6 US-10-029-386-16651
                                                            Sequence 16651, A
  21
          126
                 2.8
                        564 6
                                US-10-029-386-2951
                                                            Sequence 2951, Ap
   22
           90
                 2.0
                       1752
                             9
                                US-10-450-763-4807
                                                            Sequence 4807, Ap
   23
           87
                 1.9
                        565
                             4
                                US-09-925-065A-518628
                                                            Sequence 518628,
                        219
                                                            Sequence 13, Appl
   24
           76
                 1.7
                             7
                                US-10-293-864-13
   25
           68
                 1.5
                        516 7
                                US-10-293-864-12
                                                            Sequence 12, Appl
   26
           62
                        606 4
                                US-09-925-065A-600703
                                                            Sequence 600703,
                 1.4
   27
                         60 3
                                                            Sequence 13034, A
           60
                 1.3
                                US-09-908-975-13034
   28
           53
                 1.2
                        437
                             4
                                US-09-925-065A-518627
                                                            Sequence 518627,
  29
           32
                 0.7
                        141
                             5
                                US-10-066-543-969
                                                            Sequence 969, App
С
                        962
                             3
                                US-09-764-886-40
                                                            Sequence 40, Appl
  30
           31
                 0.7
С
  31
           31
                 0.7
                        962 3
                                US-09-764-891-2651
                                                             Sequence 2651, Ap
c 32
           31
                 0.7
                        962 3
                                US-09-764-886-40
                                                             Sequence 40, Appl
  33
           29
                 0.6
                        484 3
                                US-09-918-995-27762
                                                            Sequence 27762, A
                        583 5
           29
  34
                 0.6
                                US-10-027-632-273694
                                                             Sequence 273694,
  35
           29
                 0.6
                        583
                                US-10-027-632-273694
                                                             Sequence 273694,
   36
           29
                 0.6
                       3876 3
                                US-09-849-602-4
                                                             Sequence 4, Appli
   37
           29
                 0.6
                       4457 8
                                US-10-775-169-259
                                                             Sequence 259, App
   38
           27
                 0.6
                        608 5
                                US-10-027-632-138843
                                                             Sequence 138843,
   39
           27
                 0.6
                        608 6
                                US-10-027-632-138843
                                                             Sequence 138843,
                                                             Sequence 1463, Ap
   40
                        502 7
                                US-10-424-599-1463
           26
                 0.6
                        603 4
                                                             Sequence 911834,
   41
           26
                 0.6
                                US-09-925-065A-911834
                        656
                                                             Sequence 37147, A
  42
           26
                 0.6
                             4
                                US-09-925-065A-37147
\mathbf{C}
  43
           26
                 0.6
                        732 4
                                US-09-925-065A-92008
                                                             Sequence 92008, A
                                                             Sequence 25, Appl
   44
           26
                 0.6 49888 6
                                US-10-085-117-25
           25
                 0.6
                         25 7
                                US-10-719-956-512062
                                                             Sequence 512062,
   45
```

### ALIGNMENTS

```
US-10-007-047-1
; Sequence 1, Application US/10007047
; Publication No. US20030124533A1
; GENERAL INFORMATION:
  APPLICANT: Mizukami, Ikuko
  APPLICANT: Ross, Theodora
  APPLICANT: Rao, Dinesh
  TITLE OF INVENTION: HIP1 Cancer Markers
   FILE REFERENCE: UM-06692
  CURRENT APPLICATION NUMBER: US/10/007,047
   CURRENT FILING DATE: 2001-12-06
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
   LENGTH: 4534
   TYPE: DNA
   ORGANISM: Homo sapiens
   FEATURE:
;
   NAME/KEY: misc feature
   LOCATION: (4521)..(4521)
   OTHER INFORMATION: The nucleotide "n" can be either a,t,c, or g
   NAME/KEY: misc feature
    LOCATION: (4522)..(4522)
    OTHER INFORMATION: The nucleotide "n" can be either a,t,c, or g
US-10-007-047-1
```

RESULT 1

Query Match 100.0%; Score 4534; DB 6; Length 4534; Best Local Similarity 100.0%; Pred. No. 0; Matches 4534; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 1 CCAAGCTTGGTACCCCCGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATG 60 Qу 1 CCAAGCTTGGTACCCCGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATG 60 Db 61 GATCGGATGGCCAGCTCCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGG 120 Qу 61 GATCGGATGGCCAGCTCCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGG 120 Db 121 CGCGGGGTCGGCGTGGGCTGGAGGCGGCGGAGCGCGAGAGCTTCGAGCGGACTCAGACT 180 Qу Db 181 GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA 240 Qу 181 GTCAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGA 240 Db 241 ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAAC 300 Qу 241 ACGTGCATACTGGGCACCCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAAC 300 Db 301 CGCCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAA 360 Qу 301 CGCCTGCCTCTGTCTAGCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTGTTCCACAAA 360 Db 361 CTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTG 420 Qу 361 CTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTG 420 Db 421 AGTGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATC 480 QУ 421 AGTGACATGAGCAGGATGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATC 480 Db 481 TACCTGAAACTGCTAAGAACCAAGATGGAGTACCACACAAAAATCCCAGGTTCCCAGGC 540 Qу 481 TACCTGAAACTGCTAAGAACCAAGATGGAGTACCACCAAAAATCCCAGGTTCCCAGGC 540 Db 541 AACCTGCAGATGAGTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGAGCAACATTT 600 Qу 541 AACCTGCAGATGACTGACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTT 600 Db 601 TCCCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACA 660 Qу 601 TCCCAGTTAACAGTGGAGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACA 660 Db 661 GTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGC 720 Qу 661 GTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGC 720 Db 721 CTCGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAG 780 Qу 721 CTCGCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAG 780 Db

Qу	781	$\tt CTTCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGC$	840
Db	781		840
Qу	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900
Db	841	TTCATGGAGCAGTTTACAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTAC	900
Qу	901	TTCAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	960
Db	901	TTCAAGCGGCTCATTCAGATCCCCCAGCTGCCTGAGAACCCACCC	960
Qу	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
Db	961	TCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCC	1020
QУ	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
Db	1021	GACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAAT	1080
QУ	1081	TTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1140
Db	1081	TTATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCA	1140
Qу	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
Db	1141	TTCAACAGTCAAAATGGTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATAC	1200
QУ	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
Db	1201	AGAGAGATCAGTGGATTGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTT	1260
Qy	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACC	1320
Db	1261	GTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCACCAC	1320
Qy	1321	CTGCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGG	1380
Db	1321	CTGCGGCAGCAGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGG	1380
QУ	1381	AGGCAGCGGGAGGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Db	1381	AGGCAGCGGAGGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCT	1440
Qу	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
Db	1441	CAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAAC	1500
QУ	1501	CACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
Db	1501	CACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAA	1560
QУ	1561	GCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGT	1620
Db	1561	GCCCAGGTAGATTTGGAACGAGAAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGT	1620
Ov	1621	GACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAA	1680

Db	1621	GACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAA	1680
Qу	1681	CTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAG	1740
Db	1681	CTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAG	1740
Qу	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Db	1741	TCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTG	1800
Qу	1801	AGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACT	1860
Db	1801		1860
Qу	1861	CAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAA	1920
Db	1861	CAGCTCAAACTGGCCAGCACGAGGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAA	1920
Qу	1921	ATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAG	1980
Db	1921	ATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAG	1980
Qу	1981	CTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTC	2040
Db	1981	CTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCCCACGGTC	2040
Qу	2041	ACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGC	2100
Db	2041	ACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGC	2100
Qу	2101	CCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGAC	2160
Db	2101	CCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGAC	2160
Qу	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220
Db	2161	GCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTG	2220
Qу	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Db	2221	ACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAA	2280
Qу	2281	GAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
Db	2281	GAGGGAAGCCTTGAGAATGCCGACAGCCACAGCCATGAGGAACTGCCTGAGCAAGATCAAG	2340
Qу	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
Db	2341	GCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGAC	2400
ΟУ	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
Db	2401	CTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATA	2460
Qγ	2461	GAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520

Db	2461	GAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520
Qу	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580
Db	2521	AGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCT	2580
Qy	2581	AAGGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
Db	2581	AAGGACCTCCAGAGAGAGTTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTT	2640
Qy	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
Db	2641	TATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGG	2700
Qy	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
Db	2701	GGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAG	2760
Qy	2761	GAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
Db	2761	GAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCC	2820
Qy	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
Db	2821	AAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGA	2880
Qy	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Db	2881	GTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAA	2940
Qy	2941	GAGACAGACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	3000
Db	2941	GAGACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATG	3000
Qy	3001	GATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTG	3060
Db	3001	GATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTG	3060
Qy	3061	GGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGA	3120
Db	3061	GGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGA	3120
QУ	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
Db	3121	ACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACC	3180
QУ	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
Db	3181	AACACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGC	3240
QУ	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGA	3300
Db	3241	CACAGGCCAAATCCTTGGAGTCCCAGGGGCAGCCACCACCACTGCCATTACCCAGTGCCGA	3300
QУ	3301	GGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCA	3360
Db	3301	GGACATGCATGACACTTCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCA	3360

,

Qу	3361	TGGATTTCCACTGCTTCTTATGGTTGGTTTGGTTTTTTTT	3420
Db	3361	TGGATTTCCACTGCTTCTTATGGTGGTTGGTTTTTTTTTT	3420
Qу	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480
Db	3421	AAGTTTCACTCACATAGCCAACTCTCCCAAAGGGCACACCCCTGGGGCTGAGTCTCCAGG	3480
Qу	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Db	3481	GCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTCGGTGCTCCATCTC	3540
Qy	3541	CGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCT	3600
Db	3541	CGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCT	3600
Qу	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Db	3601	GCTGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGT	3660
Qу	3661	TGAATCCCGGCGGAAAGCCTCTGTCCGCCTTTACAAGGGAGAAGACAACAGAAAGAGGGA	3720
Db	3661	TGAATCCCGGCGAAAGCCTCTGTCCGCCTTTACAAGGGAAAGACAACAGAAAGAGGGA	3720
Qу	3721	CAAGAGGGTTCACACAGCCCAGTTCCCGTGACGAGGCTCAAAAACTTGATCACATGCTTG	3780
Db	3721		3780
Qу	3781	AATGGAGCTGGTGAGATCAACACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Db	3781	AATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAACTGTCCGTGAATGG	3840
Qу	3841	TCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGAGTGATTCCCAAC	3900
Db	3841	TCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGAGTGATTCCCAAC	3900
Qy	3901	TCCTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTA	3960
Db	3901		3960
Qy	3961	CGCAATTGACAAACCCGGAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATAC	4020
Db	3961		4020
Qy	4021	TTGGTTTGCTACCCTTAGTATTTATTACTAACCTCCCTTAAGCAGCAACAGCCTACAAAG	4080
Db	4021		4080
Qу	4081	AGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAAGCTCATCTTTCTGCCCG	4140
Db	4081		4140
Qу	4141	GCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGG	4200
Db	4141		4200

Qy	4201	ATCCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAGGACAGAG	4260
Db	4201		4260
Qу	4261	CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA	4320
Db	4261	CCAGCGGCTCCAACTCCTTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGA	4320
Qу	4321	TGAGGACAGAGGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT	4380
Db	4321	TGAGGACAGAGGCACATGAACAGCTTGCCAGGGATGGGCAGCCCAACAGCACTTTTCCT	4380
Qу	4381	CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT	4440
Db	4381	CTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGGAAAACAGCGTCTTCCT	4440
Qу	4441		4500
Db	4441	TCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCGGAATTCCTGCAGCCC	4500
QУ	4501		
Db	4501	GGGCGGCCGCTCGAGCATGCNNTAGAGGGCCCTA 4534	

GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM nucleic - nucleic search, using sw model

January 10, 2006, 12:26:01; Search time 390 Seconds Run on:

(without alignments)

8475.850 Million cell updates/sec

Title: US-10-007-047-1

Perfect score: 4534

1 ccaagettggtaccccggg......gcatgcnntagagggcccta 4534 Sequence:

Scoring table: OLIGO NUC

Gapop 60.0 , Gapext 60.0

Searched: 4637633 seqs, 364532575 residues

0 Word size :

Total number of hits satisfying chosen parameters: 9275266

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published\_Applications NA\_New:\*

1: /cgn2\_6/ptodata/1/pubpna/US08\_NEW\_PUB.seq:\* 2: /cgn2\_6/ptodata/1/pubpna/US06\_NEW\_PUB.seq:\*

3: /cgn2\_6/ptodata/1/pubpna/US07\_NEW\_PUB.seq:\*

```
4: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
5: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
7: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq:*
8: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq2:*
9: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq3:*
10: /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

용

Res	ult		Query				
	No.	Score	Match	Length	DB	ID	Description
	1	3245	71.6	7239	6	US-10-955-054A-21	Sequence 21, Appl
	2	30	0.7	3391	6	US-10-750-185-64852	Sequence 64852, A
	3	30	0.7	3391	6	US-10-750-623-64852	Sequence 64852, A
	4	29	0.6	4457	6	US-10-775-169-259	Sequence 259, App
	5	25	0.6	25	7	US-11-121-849-111397	Sequence 111397,
	6	25	0.6	25	7	US-11-121-849-111398	Sequence 111398,
	7	25	0.6	25	7	US-11-121-849-111399	Sequence 111399,
	8	25	0.6	25	7	US-11-121-849-111400	Sequence 111400,
	9	25	0.6	25	7	US-11-121-849-111401	Sequence 111401,
	10	25	0.6	25	7	US-11-121-849-111402	Sequence 111402,
	11	25	0.6	25	7	US-11-121-849-111403	Sequence 111403,
	12	25	0.6	25	7	US-11-121-849-111404	Sequence 111404,
	13	25	0.6	25	7	US-11-121-849-111405	Sequence 111405,
	14	25	0.6	25	7	US-11-121-849-111406	Sequence 111406,
	15	24	0.5	1614	6	US-10-750-185-61247	Sequence 61247, A
	16	24	0.5	1614	6	US-10-750-623-61247	Sequence 61247, A
	17	23	0.5	1836	6	US-10-750-185-57119	Sequence 57119, A
	18	23	0.5	1836	6	US-10-750-623-57119	Sequence 57119, A
	19	23	0.5	5152	6	US-10-240-708-74	Sequence 74, Appl
C	20	23		187745	7	US-11-121-086-83	Sequence 83, Appl
	21	22	0.5	25	7	US-11-121-849-111396	Sequence 111396,
	22	22	0.5	201	6	US-10-995-561-63599	Sequence 63599, A
	23	22	0.5	858	6	US-10-750-185-51624	Sequence 51624, A
	24	22	0.5	858	6	US-10-750-623-51624	Sequence 51624, A
	25	22	0.5	882	6	US-10-750-185-27597	Sequence 27597, A
	26	22	0.5	882	6	US-10-750-623-27597	Sequence 27597, A
	27	22	0.5	957	6	US-10-750-185-49319	Sequence 49319, A
	28	22	0.5	957	6	US-10-750-623-49319	Sequence 49319, A
	29	22	0.5	67088	6	US-10-995-561 <b>-</b> 13365	Sequence 13365, A
С	30	22		1080000		US-10-928-446A-1	Sequence 1, Appli
С	31	22		1080000		US-10-928-446A-181	Sequence 181, App
С	32	22		1080000		US-10-928-446A-183	Sequence 183, App
С	33	22		1080000		US-10-928-446A-185	Sequence 185, App
С	34	22		1080000		US-10-928-446A-187	Sequence 187, App
С	35	22		1080000		US-10-928-446A-189	Sequence 189, App
С	36	22		1080000	6	US-10-928-446A-191	Sequence 191, App
С	37	22		1080000		US-10-928-446A-193	Sequence 193, App
С	38	22		1080000		US-10-928-446A-195	Sequence 195, App
С	39	22		1080000	6	US-10-928-446A-197	Sequence 197, App
С	40	22	0.5	1080000	6	US-10-928-446A-199	Sequence 199, App

```
0.5 1080000 6 US-10-928-446A-201
  41
          22
C
                                                           Sequence 201, App
                0.5
  42
          21
                       201 6 US-10-995-561-14995
                                                          Sequence 14995, A
                            6 US-10-750-185-64853
          21
                0.5
   43
                       891
                                                          Sequence 64853, A
          21
                0.5
                       891
   44
                           6 US-10-750-623-64853
                                                          Sequence 64853, A
   45
          21
                0.5
                      1139 6 US-10-750-185-49128
                                                          Sequence 49128, A
```

#### ALIGNMENTS

```
RESULT 1
US-10-955-054A-21
; Sequence 21, Application US/10955054A
; Publication No. US20050266420A1
; GENERAL INFORMATION:
  APPLICANT: PUSZTAI, LAJOS
  APPLICANT: SYMMANS, W. FRASER
  APPLICANT: HESS, KENNETH R.
  APPLICANT: AYERS, MARK
  APPLICANT: STEC, JAMES
  TITLE OF INVENTION: MULTIGENE PREDICTORS OF RESPONSE TO CHEMOTHERAPY
  FILE REFERENCE: UTXC:880US
  CURRENT APPLICATION NUMBER: US/10/955,054A
  CURRENT FILING DATE: 2004-09-30
  NUMBER OF SEQ ID NOS: 195
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
  LENGTH: 7239
   TYPE: DNA
   ORGANISM: Homo sapiens
US-10-955-054A-21
 Query Match
                   71.6%; Score 3245; DB 6; Length 7239;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 3345; Conservative 0; Mismatches
                                      2; Indels
                                                 0; Gaps
                                                          0;
Qy
        17 CGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATGGATCGGATGGCCAGCT 76
          1 CGGGGCAGCCGAGGGCCCCTGACTCGGCTCCTCGCGGCGACATGGATCGGATGGCCAGCT 60
Db
        77 CCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGGCGGGGGGTCGGCGCTG 136
QУ
          61 CCATGAAGCAGGTGCCCAACCCACTGCCCAAGGTGCTGAGCCGGCGGGGGTCGGCGCTG 120
Db
       137 GGCTGGAGGCGGGGGGGGGGGGGGGGGGGTCAGACTGAGACTGTCAGCATCAATAAGG 196
Qу
          Db
       121 GGCTGGAGGCGGAGGCGCGAGAGCTTCGAGCGGACTCAGACTGTCAGCATCAATAAGG 180
       197 CCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAACGTGCATACTGGGCA 256
Qу
          Db
       181 CCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAACGTGCATACTGGGCA 240
Qу
       Db
       Qу
       317 GCAACGCAGTGCTCTGCTGGAAGTTCTGCCATGTTTCCACAAACTCCTCCGAGATGGAC 376
```

Db	301	GCAACGCAGTGCTCTGCAAAGTTCTGCCATGTGTTCCACAAACTCCTCCGAGATGGAC	360
Qу	377	ACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAGTGACATGAGCAGGA	436
Db	361	ACCCGAACGTCCTGAAGGACTCTCTGAGATACAGAAATGAATTGAGTGACATGAGCAGGA	420
Qу	437	TGTGGGGCTACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTACCTGAAACTGCTAA	496
Db	421	TGTGGGGCCACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTACCTGAAACTGCTAA	480
Qy	497	GAACCAAGATGGAGTACCACCAAAAATCCCAGGTTCCCAGGCAACCTGCAGATGAGTG	556
Db	481	GAACCAAGATGGAGTACCACCAAAAATCCCAGGTTCCCAGGCAACCTGCAGATGAGTG	540
Qy	557	ACCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTTTCCCAGTTAACAGTGG	616
Db	541	ACCGCCAGCTGGACGAGGAGAAAGTGACGTGAACAACTTTTTCCAGTTAACAGTGG	600
Qу	617	AGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGTATTCAACTCCCTGG	676
Db	601	AGATGTTTGACTACCTGGAGTGTGAACTCAACCTCTTCCAAACAGTATTCAACTCCCTGG	660
Qу	677	ACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCTCGCCCCGCTGATCC	736
Db	661	ACATGTCCCGCTCTGTGTCCGTGACGGCAGCAGGGCAGTGCCGCCTCGCCCCGCTGATCC	720
Qу	737	AGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCTTCTCTTCAAACTCC	796
Db	721	AGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCTTCTCTTCAAACTCC	780
Qу	797	ACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTTCATGGAGCAGTTTA	856
Db	781	ACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTTCATGGAGCAGTTTA	840
Qу	857	CAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTTCAAGCGGCTCATTC	916
Db	841	CAAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTTCAAGCGGCTCATTC	900
Qу	917	AGATCCCCCAGCTGCCTGAGAACCCACCCAACTTCCTGCGAGCCTCAGCCCTGTCAGAAC	976
Db	901	AGATCCCCCAGCTGCCTGAGAACCCACCCAACTTCCTGCGAGCCTCAGCCCTGTCAGAAC	960
Qу	977	ATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGACAGCGAGCCAGTCC	1036
Db	961	ATATCAGCCCTGTGGTGGTGATCCCTGCAGAGGCCTCATCCCCCGACAGCGAGCCAGTCC	1020
Qу	1037	TAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTTATTT	1096
Db	1021	TAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTTATTT	1080
Qу	1097	TTGATGACATCTTTGGCAGTTCATTCAGCAGTGATCCCTTCAATTTCAACAGTCAAAATG	1156
Db	1081	TTGATGACATCTTTGGCAGTTCATTCAGCAGTGATCCCTTCAATTTCAACAGTCAAAATG	1140
QУ	1157	GTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAGAGAGATCAGTGGAT	1216

Db	1141	GTGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAGAGAGATCAGTGGAT	1200
Qу	1217	TGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGTGCTGCAGCTGAAGG	1276
Db	1201	TGAAGGCACAGCTAGAAAACATGAAGACTGAGAGCCAGCGGGTTGTGCTGCAGCTGAAGG	1260
Qу	1277	GCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCAGCACCTGCGGCAGCAGCGG	1336
Db	1261	GCCACGTCAGCGAGCTGGAAGCAGATCTGGCCGAGCAGCAGCACCTGCGGCAGCAGCGG	1320
Qу	1337	CCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAGGCAGCGGGAGGACA	1396
Db	1321	CCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAGGCAGCGGGAGGACA	1380
QУ	1397	CCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCAAGCCAATGAACAGC	1456
Db	1381	CCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCAAGCCAATGAACAGC	1440
Qу	1457	GATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCACGCTGACCTGC	1516
Db	1441		1500
QУ	1517	GGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGCCCAGGTAGATTTGG	1576
Db	1501	GGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGGCCAGACAAGCCCAGGTAGATTTGG	1560
Qу	1577	AACGAGAAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGACCAGGGCCAGCGGA	1636
Db	1561	AACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGCGCATCAGTGACCAGGGCCAGCGGA	1620
Qу	1637	AGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACTTGCCACAAGCCAAC	1696
Db	1621	AGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACTTGCCACAAGCCAAC	1680
QУ	1697	GGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTCAGAAGCAAACTGGG	1756
Db	1681	GGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTCAGAAGCAAACTGGG	1740
Qу	1757	CAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAGTGGCGCAGCTCATA	1816
Db	1741	CAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAGTGGCGCAGCTCATA	1800
QУ	1817	GGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCAGCTCAAACTGGCCA	1876
Db	1801	GGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGCAGGACACTCAGCTCAAACTGGCCA	1860
Qу	1877	GCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAATGCTTCTGGTGGGGT	1936
Db	1861	GCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACCAACGAAAAATGCTTCTGGTGGGGT	1920
Qу	1937	CCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCTTGAAGAACCTCCTC	1996
Db	1921	CCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCTTGAAGAACCTCCTC	1980
Qy	1997	TCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCACATCCATTTCCAGCT	2056
Db	1981	TCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCCCACGGTCACATCCATTTCCAGCT	2040

Qу	2057	GCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCCAGAAGACATCAGTG	2116
Db	2041	GCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCCAGAAGACATCAGTG	2100
Qy	2117	GACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGCCATTGCTCATGGTG	2176
Db	2101	GACTTCTCCATTCCATAACCCTGCTGGCCCACTTGACCAGCGACGCCATTGCTCATGGTG	2160
Qу	2177	CCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGACCGAGGCCTGTAAGC	2236
Db	2161	CCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCGACTCACTGACCGAGGCCTGTAAGC	2220
Qу	2237	AGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGAGGGAAGCCTTGAGA	2296
Db	2221	AGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGAGGGAAGCCTTGAGA	2280
Qу	2297	ATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGCCATCGGCGAGGAGC	2356
Db	2281	ATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGCCATCGGCGAGGAGC	2340
Qу	2357	TCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCTGGTGGACAAGGAGA	2416
Db	2341	TCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCTGGTGGACAAGGAGA	2400
Qу	2417	TGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGAGGAGATGCTCAGCA	2476
Db	2401	TGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGGCCAGAATAGAGGAGATGCTCAGCA	2460
Qу	2477	AATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2536
Db	2461	AATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGGTGAATGAA	2520
Qу	2537	GTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAAGGACCTCCAGAGAG	2596
Db	2521	GTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAAGGACCTCCAGAGAG	2580
Qу	2597	AGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTATGCCAAGAACTCTC	2656
Db	2581	AGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTATGCCAAGAACTCTC	2640
Qу	2657	GATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGGAGCCACTGTCATGG	2716
Db	2641	GATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGGAGCCACTGTCATGG	2700
Qу	2717	TGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGAGCTAATGGTGTTT	2776
Db	2701	TGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGAAATTTGAGGAGCTAATGGTGTTT	2760
Qу	2777	CTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGGCTGCATCCAAGGTGAAAGCTGATA	2836
Db	2761		2820
Qу	2837	AGGACAGCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGTGAACCAGGCCACTG	2896
Db	2821		2880

```
Qу
        Db
     2957 ACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGATTCTCAGGTTAGGG 3016
Qу
        Db
     2941 ACTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGATTCTCAGGTTAGGG 3000
Qу
     3017 TGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGGAGAGCTTCGGAAAA 3076
        3001 TGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTCAAAAACTGGGAGAGCTTCGGAAAA 3060
Db
     3077 AGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAACAGAGGCATCTCCAC 3136
Qy
        3061 AGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGGAAGAAGGAACAGAGGCATCTCCAC 3120
Db
     3137 CTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAACACCCCATATGTCA 3196
Qу
        3121 CTACACTGCAAGAAGTGGTAACCGAAAAAGAATAGAGCCAAACCAACACCCCATATGTCA 3180
Db
     3197 GTGTAAATCCTTGTTACCTATCTCGTGTGTTATTTCCCCAGCCACAGGCCAAATCCTT 3256
Qу
        3181 GTGTAAATCCTTGTTACCTATCTCGTGTGTGTTATTTCCCCAGCCACAGGCCAAATCCTT 3240
Db
     Qу
        Db
     3317 TCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCATGG 3363
Qу
        Db
     3301 TCCAAAGACTCCCTCCATAGCGACACCCTTTCTGTTTGGACCCATGG 3347
RESULT 2
US-10-750-185-64852
; Sequence 64852, Application US/10750185
; Publication No. US20050260603A1
; GENERAL INFORMATION:
 APPLICANT: MMI GENOMICS, INC.
```

- APPLICANT: DeNISE, Sue K.
- APPLICANT: KERR, Richard
- APPLICANT: ROSENFELD, David
- APPLICANT: HOLM, Tom
- APPLICANT: BATES, Stephen
- APPLICANT: FANTIN, Dennis
- TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
- FILE REFERENCE: MMI1100-2
- CURRENT APPLICATION NUMBER: US/10/750,185
- CURRENT FILING DATE: 2003-12-31
- PRIOR APPLICATION NUMBER: US 60/437,482
- PRIOR FILING DATE: 2002-12-31
- NUMBER OF SEQ ID NOS: 64922
- SOFTWARE: PatentIN version 3.1
- ; SEQ ID NO 64852
- LENGTH: 3391
- TYPE: DNA
- ORGANISM: Bovine 19866880385058

```
Query Match
                         0.7%; Score 30; DB 6; Length 3391;
  Best Local Similarity 100.0%; Pred. No. 0.00021;
 Matches 30; Conservative 0; Mismatches
                                              0; Indels
                                                             0; Gaps
                                                                        0;
Qy
         660 AGTATTCAACTCCCTGGACATGTCCCGCTC 689
             Db
         669 AGTATTCAACTCCCTGGACATGTCCCGCTC 698
RESULT 3
US-10-750-623-64852
; Sequence 64852, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
  APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DeNISE, Sue K.
; APPLICANT: KERR, Richard
  APPLICANT: ROSENFELD, David
  APPLICANT: HOLM, Tom
  APPLICANT: BATES, Stephen
  APPLICANT: FANTIN, Dennis
  TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
  FILE REFERENCE: MMI1100-1
  CURRENT APPLICATION NUMBER: US/10/750,623
  CURRENT FILING DATE: 2003-12-31
  PRIOR APPLICATION NUMBER: US 60/437,482
  PRIOR FILING DATE: 2002-12-31
  NUMBER OF SEQ ID NOS: 64922
  SOFTWARE: PatentIN version 3.1
; SEQ ID NO 64852
   LENGTH: 3391
   TYPE: DNA
   ORGANISM: Bovine 19866880385058
US-10-750-623-64852
 Query Match
                         0.7%; Score 30; DB 6; Length 3391;
 Best Local Similarity 100.0%; Pred. No. 0.00021;
 Matches 30; Conservative 0; Mismatches
                                             0; Indels
                                                             0; Gaps
         660 AGTATTCAACTCCCTGGACATGTCCCGCTC 689
Qу
             Db
         669 AGTATTCAACTCCCTGGACATGTCCCGCTC 698
RESULT 4
US-10-775-169-259
; Sequence 259, Application US/10775169
; Publication No. US20050287532A9
; GENERAL INFORMATION:
; APPLICANT: Wyeth
; APPLICANT: Burczynski, Michael
; APPLICANT: Twine, Natalie
; APPLICANT: Dorner, Andrew
; APPLICANT: Trepicchio, William
; TITLE OF INVENTION: Method for Monitoring Drug Activities In Vivo
```

```
; FILE REFERENCE: AM101080 (031896-013000)
; CURRENT APPLICATION NUMBER: US/10/775,169
  CURRENT FILING DATE: 2004-02-11
  NUMBER OF SEQ ID NOS: 5278
 SOFTWARE: PatentIn version 3.2
; SEO ID NO 259
   LENGTH: 4457
   TYPE: DNA
   ORGANISM: Homo sapiens
US-10-775-169-259
 Query Match
                         0.6%; Score 29; DB 6; Length 4457;
  Best Local Similarity 100.0%; Pred. No. 0.00063;
 Matches 29; Conservative 0; Mismatches
                                               0; Indels
                                                             0; Gaps
                                                                         0;
        2680 GCCTCCAAGGCTGTGGGCTGGGGAGCCAC 2708
Qу
             Db
        2670 GCCTCCAAGGCTGTGGGCTGGGGAGCCAC 2698
RESULT 5
US-11-121-849-111397
; Sequence 111397, Application US/11121849
; Publication No. US20050272080A1
; GENERAL INFORMATION:
; APPLICANT: John Palma
; TITLE OF INVENTION: Methods of Genetic Analysis of Formalin Fixed Paraffin
Embedded Samples on
; TITLE OF INVENTION: Microarrays
  FILE REFERENCE: 3684.1
  CURRENT APPLICATION NUMBER: US/11/121,849
  CURRENT FILING DATE: 2005-05-03
  PRIOR APPLICATION NUMBER: 60/567,949
; PRIOR FILING DATE: 2004-05-03
; NUMBER OF SEQ ID NOS: 673904
  SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
; SEQ ID NO 111397
   LENGTH: 25
   TYPE: DNA
   ORGANISM: Homo sapien
US-11-121-849-111397
                         0.6%; Score 25; DB 7; Length 25;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 0.069;
                                              0; Indels
 Matches
           25; Conservative 0; Mismatches
                                                             0; Gaps
                                                                         0;
        4184 GACTGTTACTGACTTGGATCCCAAA 4208
Qу
             Db
           1 GACTGTTACTGACTTGGATCCCAAA 25
RESULT 6
US-11-121-849-111398
; Sequence 111398, Application US/11121849
; Publication No. US20050272080A1
; GENERAL INFORMATION:
; APPLICANT: John Palma
```

```
; TITLE OF INVENTION: Methods of Genetic Analysis of Formalin Fixed Paraffin
Embedded Samples on
; TITLE OF INVENTION: Microarrays
  FILE REFERENCE: 3684.1
; CURRENT APPLICATION NUMBER: US/11/121,849
  CURRENT FILING DATE: 2005-05-03
; PRIOR APPLICATION NUMBER: 60/567,949
; PRIOR FILING DATE: 2004-05-03
; NUMBER OF SEQ ID NOS: 673904
; SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
; SEQ ID NO 111398
   LENGTH: 25
   TYPE: DNA
   ORGANISM: Homo sapien
US-11-121-849-111398
 Query Match
                         0.6%; Score 25; DB 7; Length 25;
 Best Local Similarity 100.0%; Pred. No. 0.069;
                                                             0; Gaps
 Matches 25; Conservative 0; Mismatches 0; Indels
                                                                        0;
        4221 TTTGGAGCTCTTGGGTCAGAGAAA 4245
Qу
             Db
           1 TTTGGAGCTCTTGGGTCAGAGAAA 25
RESULT 7
US-11-121-849-111399
; Sequence 111399, Application US/11121849
; Publication No. US20050272080A1
; GENERAL INFORMATION:
; APPLICANT: John Palma
; TITLE OF INVENTION: Methods of Genetic Analysis of Formalin Fixed Paraffin
Embedded Samples on
; TITLE OF INVENTION: Microarrays
; FILE REFERENCE: 3684.1
  CURRENT APPLICATION NUMBER: US/11/121,849
  CURRENT FILING DATE: 2005-05-03
; PRIOR APPLICATION NUMBER: 60/567,949
; PRIOR FILING DATE: 2004-05-03
; NUMBER OF SEQ ID NOS: 673904
; SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
; SEQ ID NO 111399
   LENGTH: 25
   TYPE: DNA
   ORGANISM: Homo sapien
US-11-121-849-111399
 Query Match
                         0.6%; Score 25; DB 7; Length 25;
 Best Local Similarity 100.0%; Pred. No. 0.069;
 Matches 25; Conservative 0; Mismatches
                                               0; Indels
                                                             0; Gaps
                                                                        0;
Qу
       4297 GCTCTCGCTGCCCTGTGGACAGGAT 4321
            Db
           1 GCTCTCGCTGCCCTGTGGACAGGAT 25
```

```
US-11-121-849-111400
; Sequence 111400, Application US/11121849
; Publication No. US20050272080A1
; GENERAL INFORMATION:
; APPLICANT: John Palma
; TITLE OF INVENTION: Methods of Genetic Analysis of Formalin Fixed Paraffin
Embedded Samples on
; TITLE OF INVENTION: Microarrays
  FILE REFERENCE: 3684.1
  CURRENT APPLICATION NUMBER: US/11/121,849
; CURRENT FILING DATE: 2005-05-03
; PRIOR APPLICATION NUMBER: 60/567,949
; PRIOR FILING DATE: 2004-05-03
; NUMBER OF SEQ ID NOS: 673904
  SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
; SEQ ID NO 111400
   LENGTH: 25
   TYPE: DNA
   ORGANISM: Homo sapien
US-11-121-849-111400
                          0.6%; Score 25; DB 7; Length 25;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 0.069;
          25; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                          0;
                                                              0; Gaps
Qу
        4323 AGGACAGAGGGCACATGAACAGCTT 4347
             1 AGGACAGAGGGCACATGAACAGCTT 25
Db
                            GenCore version 5.1.6
                 Copyright (c) 1993 - 2006 Compugen Ltd.
OM nucleic - nucleic search, using sw model
Run on:
               January 10, 2006, 11:09:26; Search time 11009 Seconds
                                          (without alignments)
                                         19269.019 Million cell updates/sec
               US-10-007-047-1
Title:
Perfect score: 4534
Sequence:
               1 ccaagettggtaccccggg......gcatgcnntagagggcccta 4534
Scoring table: OLIGO NUC
               Gapop 60.0 , Gapext 60.0
Searched:
               41078325 seqs, 23393541228 residues
Word size :
               0
Total number of hits satisfying chosen parameters:
                                                    82156650
```

Post-processing: Listing first 45 summaries

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Database : EST:\*
 1: gb\_est1:\*
 2: gb\_est2:\*
 3: gb\_est3:\*
 4: gb\_htc:\*
 5: gb\_est4:\*
 6: gb\_est5:\*
 7: gb\_est6:\*
 8: gb\_est7:\*
 9: gb\_gss1:\*
 10: gb\_gss2:\*
 11: gb\_gss3:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

			8			SUMMARIE	<u>.</u>
Resi	ılt		Query				
1	۱o.	Score	Match	Length	DB	ID	Description
	1	1739	38.4	2730	1.1	DQ050139	DQ050139 Homo sapi
	2	809	17.8	867	6	CD251809	CD251809 AGENCOURT
	3	781	17.2	781	8	CX871109	CX871109 HESC4_53_
	4	763	16.8	939	5	BQ951181	BQ951181 AGENCOURT
	5	715	15.8	896	5	BU169905	BU169905 AGENCOURT
	6	711	15.7	920	6	CA976174	CA976174 AGENCOURT
	7	705	15.5	740	3	BI832375	BI832375 603072967
	8	688	15.2	854	3	BI826617	BI826617 603077068
	9	687	15.2	825	8	CX785639	CX785639 HESC3_50_
	10	683	15.1	1041	3	BM550560	BM550560 AGENCOURT
	11	647	14.3	912	5	BQ651977	BQ651977 AGENCOURT
	12	585	12.9	919	3	BM465156	BM465156 AGENCOURT
	13	577	12.7	1090	3	BM916156	BM916156 AGENCOURT
	14	572	12.6	918	3	BI520505	BI520505 603071510
	15	559	12.3	755	5	BQ951163	BQ951163 AGENCOURT
	16	547	12.1	1113	3	BM556334	BM556334 AGENCOURT
	17	536	11.8	592	3	BP282107	BP282107 BP282107
	18	536	11.8	968	5	BQ643973	BQ643973 AGENCOURT
	19	533	11.8	690	7	CN387640	CN387640 170004551
	20	520	11.5	808	3	BI460519	BI460519 603201132
	21	500	11.0	982	3	BM009576	BM009576 603630147
	22	500	11.0	1232	3	BM911401	BM911401 AGENCOURT
	23	496	10.9	677	8	DR003665	DR003665 TC108827
	24	491	10.8	491	1	AL045257	AL045257 DKFZp434K
	25	490	10.8	490	1	AL045271	AL045271 DKFZp434L
	26	489	10.8	489	1	AL045284	AL045284 DKFZp434L
	27	488	10.8	581	3	BP371375	BP371375 BP371375
	28	481	10.6	649	7	CN387638	CN387638 170005328
	29	476	10.5	829	2	BG027957	BG027957 602294559
	30	464	10.2	1034	3	BM560226	BM560226 AGENCOURT
	31	435	9.6	525	7	CN387642	CN387642 170004245
	32	434	9.6	2561	11	DQ050140	DQ050140 Pan trogl
	33	430	9.5	607	5	BX951152	BX951152 DKFZp781E
С	34	416	9.2	471	1	AA398472	AA398472 zt62f10.s
	35	398	8.8	1076	3	BM562169	BM562169 AGENCOURT

	36	393	8.7	495	1	AA402004	AA402004	zt62f10.r
	37	380	8.4	1174	3	BM809694	BM809694	AGENCOURT
	38	378	8.3	475	7	CN387637	CN387637	170005322
С	39	370	8.2	370	2	BF934999	BF934999	IL2-NT020
С	40	363	8.0	482	1	AI150389	AI150389	qf40g07.x
	41	361	8.0	412	5	BX951161	BX951161	DKFZp781F
	42	356	7.9	583	3	BP280707	BP280707	BP280707
	43	351	7.7	484	5	BQ695180	BQ695180	1001323 Н
С	44	331	7.3	366	2	BF956267	BF956267	QV2-NN004
	45	313	6.9	1217	3	BM912386	BM912386	AGENCOURT

### ALIGNMENTS

```
RESULT 1
DQ050139
LOCUS
            DQ050139
                                     2730 bp
                                                 DNA
                                                         linear
                                                                  GSS 02-JUN-2005
DEFINITION Homo sapiens HIPl gene, VIRTUAL TRANSCRIPT, partial sequence,
            genomic survey sequence.
ACCESSION
            DO050139
            DQ050139.1 GI:66903338
VERSION
KEYWORDS
            GSS.
SOURCE
            Homo sapiens (human)
  ORGANISM Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
            Hominidae; Homo.
                (bases 1 to 2730)
REFERENCE
  AUTHORS
            Nielsen, R., Bustamante, C., Clark, A.G., Glanowski, S., Sackton, T.B.,
            Hubisz, M.J., Fledel-Alon, A., Tanenbaum, D.M., Civello, D.,
            White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
            A Scan for Positively Selected Genes in the Genomes of Humans and
  TITLE
            Chimpanzees
            (er) PLoS Biol. 3 (6), E170 (2005)
  JOURNAL
            15869325
   PUBMED
REFERENCE
            2 (bases 1 to 2730)
  AUTHORS
            Nielsen, R., Bustamante, C., Clark, A.G., Glanowski, S., Sackton, T.B.,
            Hubisz, M.J., Fledel-Alon, A., Tanenbaum, D.M., Civello, D.,
            White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
  TITLE
            Direct Submission
  JOURNAL
            Submitted (05-MAY-2005) Celera Genomics, 45 West Gude Drive,
            Rockville, MD 20850, USA
COMMENT
            This sequence was made by sequencing genomic exons and ordering
            them based on alignment. Translation starts at the beginning of
            alignment.
FEATURES
                     Location/Qualifiers
                     1. .2730
     source
                     /organism="Homo sapiens"
                     /mol type="genomic DNA"
                     /db xref="taxon:9606"
                     /chromosome="7"
                     <1. .>2730
     gene
                     /gene="HIP1"
                     /locus tag="HC18136"
```

ORIGIN

Query Match 38.4%; Score 1739; DB 11; Length 2730; Best Local Similarity 100.0%; Pred. No. 0; Matches 1739; Conservative 0; Mismatches 0; 0; Indels 0; Gaps 1433 GGAAAGCTCAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGG 1492 Qу 992 GGAAAGCTCAAGCCAATGAACAGCGATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGG 1051 Db 1493 TTCAGAACCACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGG 1552 Qу 1052 TTCAGAACCACGCTGACCTGCCGGAAGAATGCAGAGGTGACCAAACAGGTGTCCATGG 1111 Db 1553 CCAGACAAGCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGC 1612 Qу 1112 CCAGACAAGCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTTGGAGC 1171 Db 1613 GCATCAGTGACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGA 1672 Qу 1172 GCATCAGTGACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGA 1231 Db 1673 AGCAGGAACTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTT 1732 Qу 1232 AGCAGGAACTTGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTT 1291 Db 1733 CTGCCCAGTCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACA 1792 Qу 1292 CTGCCCAGTCAGAAGCAAACTGGGCAGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACA 1351 Db 1793 GCCTGGTGAGTGGCGCAGCTCATAGGGAGGAGTTATCTGCTCTTCGGAAAGAACTGC 1852 Qу 1352 GCCTGGTGAGTGGCGCAGCTCATAGGGAGGAGGAATTATCTGCTCTTCGGAAAGAACTGC 1411 Db 1853 AGGACACTCAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACC 1912 Qу 1412 AGGACACTCAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAAAGACC 1471 Db 1913 AACGAAAATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCC 1972 Qу Db 1472 AACGAAAAATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCC 1531 1973 TGAACCAGCTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCT 2032 Qу Db 1532 TGAACCAGCTTGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCT 1591 2033 CCACGGTCACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATC 2092 Qу Db 1592 CCACGGTCACATCCATTTCCAGCTGCATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATC 1651 2093 TGGCCTGCCCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGA 2152 Qу Db 1652 TGGCCTGCCCAGAAGACATCAGTGGACTTCTCCATTCCATAACCCTGCTGGCCCACTTGA 1711 2153 CCAGCGACGCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCG 2212 Qу 

1712 CCAGCGACGCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCCTGCCG 1771

2213 ACTCACTGACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCC 2272

Db

Qу

Db	1772	ACTCACTGACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCC	1831
Qу	2273	TGGAGGAAGAGGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCA	2332
Db	1832	TGGAGGAAGAGGGAAGCCTTGAGAATGCCGACAGCCATGAGGAACTGCCTGAGCA	1891
Qу	2333	AGATCAAGGCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGC	2392
Db	1892	AGATCAAGGCCATCGGCGAGGAGCTCCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGC	1951
Qу	2393	TGGGGGACCTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGG	2452
Db	1952	TGGGGGACCTGGTGGACAAGGAGATGGCGGCCACTTCAGCTGCTATTGAAACTGCCACGG	2011
Qу	2453	CCAGAATAGAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGG	2512
Db	2012	CCAGAATAGAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATTGGAGG	2071
Qу	2513	TGAATGAAAGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCG	2572
Db	2072	TGAATGAAAGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCG	2131
Qу	2573	TGGCCTCTAAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTA	2632
Db	2132	TGGCCTCTAAGGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTA	2191
Qу	2633	AAGAGTTTTATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTG	2692
Db	2192	AAGAGTTTTATGCCAAGAACTCTCGATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTG	2251
Qу	2693	TGGGCTGGGGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGA	2752
Db	2252	TGGGCTGGGGAGCCACTGTCATGGTGGATGCAGCTGATCTGGTGGTACAAGGCAGAGGGA	2311
Qу	2753	AATTTGAGGAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGG	2812
Db	2312	AATTTGAGGAGCTAATGGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCTTGTGG	2371
Qу	2813	CTGCATCCAAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCT	2872
Db	2372	CTGCATCCAAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCT	2431
Qλ	2873	CTCGGGGAGTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCAC	2932
Db	2432	CTCGGGGAGTGAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCAC	2491
Qy	2933	AGATCGAAGACAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCC	2992
Db	2492	AGATCGAAGACAACATGGACTTCTCAAGCATGACGCTGACACAGATCAAACGCC	2551
Qy	2993	AAGAGATGGATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTC	3052
Db	2552	AAGAGATGGATTCTCAGGTTAGGGTGCTAGAGCTAGAAAATGAATTGCAGAAGGAGCGTC	2611
Qy	3053	AAAAACTGGGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGG	3112

```
Db
         2612 AAAAACTGGGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGGCTGGG 2671
         3113 AAGAAGGAACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAG 3171
Qу
              Db
         2672 AAGAAGGAACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAATAG 2730
RESULT 2
CD251809
LOCUS
           CD251809
                                    867 bp
                                              mRNA
                                                      linear
                                                               EST 22-MAY-2003
DEFINITION AGENCOURT 14205955 NIH MGC 180 Homo sapiens cDNA clone
           IMAGE: 30383286 5', mRNA sequence.
ACCESSION
           CD251809
           CD251809.1 GI:31012275
VERSION
KEYWORDS
           EST.
SOURCE
           Homo sapiens (human)
 ORGANISM Homo sapiens
           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
           Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
           Hominidae; Homo.
           1 (bases 1 to 867)
REFERENCE
           NIH-MGC http://mgc.nci.nih.gov/.
 AUTHORS
           National Institutes of Health, Mammalian Gene Collection (MGC)
 TITLE
  JOURNAL
           Unpublished (1999)
           Contact: Daniela S. Gerhard, Ph.D.
COMMENT
           Office of Cancer Genomics
           National Cancer Institute / NIH
           Bldg. 31 Rm10A07 Bethesda, MD 20892
           Email: cgapbs-r@mail.nih.gov
           Tissue Procurement: Dr. Michael Brownstein
            cDNA Library Preparation: Invitrogen Corp
            cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
            DNA Sequencing by: Agencourt Bioscience Corporation
            Clone distribution: MGC clone distribution information can be
            found through the I.M.A.G.E. Consortium/LLNL at:
           http://image.llnl.gov
           Plate: NDAM446 row: o column: 07
           High quality sequence start: 3
           High quality sequence stop: 695.
FEATURES
                    Location/Qualifiers
                    1. .867
     source
                    /organism="Homo sapiens"
                    /mol type="mRNA"
                    /db xref="taxon:9606"
                    /clone="IMAGE:30383286"
                    /lab host="DH10B-Ton A ( T1 and T5 phage resistances)"
                    /clone lib="NIH MGC 180"
                    /note="Organ: Testis; Vector: pCMV-SPORT6.1; Site 1: NotI;
                    Site 2: EcoRV (destroyed); Library is oligo-dT primed and
                    directionally cloned (EcoRV site is destroyed upon
                    cloning). Average insert size 1.68 kb. Library was
                     constructed by (Invitrogen). Note: this is a NIH MGC
                    Library."
ORIGIN
  Query Match
                         17.8%; Score 809; DB 6; Length 867;
```

Best Local Similarity 100.0%; Pred. No. 0;

Matches	809	; Conservative	0;	Mismatche	s 0;	Indels	0;	Gaps	0;
Qy :	1115	GTTCATTCAGCAGTGATC							1174
Db	29	GTTCATTCAGCAGTGATC							88
Qy :	1175	AGGACCACTTAATTGAGG							1234
Db	89	AGGACCACTTAATTGAGG	CGACT.	ATACAGAGAG	ATCAGTGG.	ATTGAAGGC	ACAGCI	ragaaa	148
Qy :	1235	ACATGAAGACTGAGAGCC							1294
Db	149	ACATGAAGACTGAGAGCC	CAGCG	GGTTGTGCTG	CAGCTGAA	GGGCCACGT	CAGCGA	AGCTGG	208
Qу	1295	AAGCAGATCTGGCCGAGC							1354
Db	209	AAGCAGATCTGGCCGAGC	CAGCA	GCACCTGCGG	CAGCAGGC	GGCCGACGA	CTGTGA	AATTCC	268
Qy 1	1355	TGCGGGCAGAACTGGACG							1414
Db	269	TGCGGGCAGAACTGGACG							328
Qy 1	1415	GCCTGTCTGAGATAGAA							1474
Db	329	GCCTGTCTGAGATAGAAA	AGGAA	AGCTCAAGCC.	AATGAACA	GCGATATAG	CAAGCT	TAAAGG	388
Qy 1	1475	AGAAGTACAGCGAGCTGG							1534
Db	389	AGAAGTACAGCGAGCTGG	STTCA	GAACCACGCT	GACCTGCT	GCGGAAGAA	rgcag <i>r</i>	AGGTGA	448
Qy 1	1535	CCAAACAGGTGTCCATGG							1594
Db	449	CCAAACAGGTGTCCATGG	GCCAG	ACAAGCCCAG	GTAGATTT	GGAACGAGA	<b>JAAAA</b> A		508
Qy 1	1595	TGGAGGATTCGTTGGAGC							1654
Db	509	TGGAGGATTCGTTGGAGC	CGCAT	CAGTGACCAG	GGCCAGCG	GAAGACTCA <i>I</i>	\GAACA		568
Qy 1	1655	AAGTTCTAGAGAGCTTGA							1714
Db	569	AAGTTCTAGAGAGCTTGA							628
Qy 1	1715	AAGGCAGCCTGGAAACTT							1774
Db	629	AAGGCAGCCTGGAAACTT	CTGC	CCAGTCAGAA	GCAAACTG	GGCAGCCGAG	FTTCGC	CCGAGC	688
Qy 1	1775	TAGAGAAGGAGCGGGACA							1834
Db	689	TAGAGAAGGAGCGGGACA	AGCCT	GGTGAGTGGC	GCAGCTCA'	ragggagga	3GAAT'I	ATCTG	748
Qy 1	1835	CTCTTCGGAAAGAACTGC							1894
Db	749	CTCTTCGGAAAGAACTGC	CAGGA	CACTCAGCTC	AAACTGGC	CAGCACAGA	<b>GAAT</b> C	CTATGT	808
Qy 1	1895	GCCAGCTTGCCAAAGACC			23				
Db	809	GCCAGCTTGCCAAAGACC	AACG	AAAAATG 83	7				